

09/234,847

Page 1

=> d ibib ab hitstr 1-4

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1969:47171 CAPLUS  
 DOCUMENT NUMBER: 70:47171  
 TITLE: 7-Nitro-and 9-nitro tetracyclines  
 INVENTOR(S): Winterbottom, Robert; Bitha, Panayota; Kissman, Henry M.  
 PATENT ASSIGNEE(S): American Cyanamid Co.  
 SOURCE: U.S., 3 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3397230	A	19680813	US 1966-533830	19660314

AB I (R<sub>3</sub> = R<sub>4</sub> = H) are treated with nitronium tetrafluoroborate (II) at 0-35.degree. to give I, where at least 1 of R<sub>3</sub> and R<sub>4</sub> is NO<sub>2</sub>. Thus, a mixt. of 20 g. MeNO<sub>2</sub> and 9.4 ml. fuming HNO<sub>3</sub> is treated with 3.94 g. HF at -6.degree., satd. with BF<sub>3</sub> at -6.degree., and filtered under N to give II. A soln. of 1.7 g. tetracycline in 40 ml. MeNO<sub>2</sub> is treated with 0.312 g. I, the mixt. is agitated 1.5 hrs. at 25.degree., 500 ml. Et<sub>2</sub>O added, and the mixt. filtered to give 1.203 g. mixt. (as the HBF<sub>4</sub> salt) of 7-nitrotetracycline and 9-nitrotetracycline. Similarly prepd. are a mixt. of I (R = R<sub>2</sub> = R<sub>4</sub> = H, R<sub>1</sub> = OH, R<sub>3</sub> = NO<sub>2</sub>) (III) and I (R = R<sub>2</sub> = R<sub>3</sub> = H, R<sub>1</sub> = OH, R<sub>4</sub> = NO<sub>2</sub>) (IV), I (R = R<sub>1</sub> = OH, R<sub>2</sub> = Me, R<sub>3</sub> = NO<sub>2</sub>, R<sub>4</sub> = H), a mixt. of I (R = R<sub>1</sub> = R<sub>2</sub> = R<sub>4</sub> = H, R<sub>3</sub> = NO<sub>2</sub>) and I (R = R<sub>1</sub> = R<sub>2</sub> = R<sub>3</sub> = H, R<sub>4</sub> = NO<sub>2</sub>), a mixt. of I (R = R<sub>1</sub> = R<sub>4</sub> = H, R<sub>2</sub> = Me, R<sub>3</sub> = NO<sub>2</sub>) and I (R = R<sub>1</sub> = R<sub>3</sub> = H, R<sub>2</sub> = Me, R<sub>4</sub> = NO<sub>2</sub>), I (R = R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = R<sub>4</sub> = NO<sub>2</sub>) (V) [from I (R<sub>3</sub> = NO<sub>2</sub>, R<sub>4</sub> = H)] and V [from I (R<sub>3</sub> = H, R<sub>4</sub> = NO<sub>2</sub>)]. III and IV are sepd. chromatographically (acid-washed Celite treated with di-Na EDTA and 2N HCl). Uv data, .lambda.max. (0.1N NaOH) and .lambda.max. (0.1N H<sub>2</sub>SO<sub>4</sub>), are given.

IT 22008-81-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

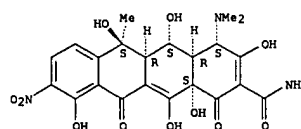
RN 22008-81-7 CAPLUS  
 CN 2-Naphthacene-9-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-9-nitro-1,11-dioxo-, mono[tetrafluoroborate(1-)] (8CI) (CA INDEX NAME)

CH 1

CRN 17779-46-3  
 CMF C22 H23 N3 O11  
 CDES 1:452:4A,4AA,5A,5AA,6B,12AA

Absolute stereochemistry.

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS (Continued)



CH 2

CRN 16872-11-0  
 CMF B F4 . H  
 CCI CCS



• H<sup>+</sup>

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1968:43680 CAPLUS  
 DOCUMENT NUMBER: 69:43680  
 TITLE: Preparation of 7- and(or) 9-nitro and aminotetracyclines  
 INVENTOR(S): Winterbottom, Robert; Kissman, Henry M.  
 PATENT ASSIGNEE(S): American Cyanamid Co.  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

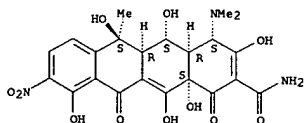
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3388162	A	19680611	US 1966-598233	19661201

AB The prepn. of the title nitro compds., useful for the prepn. of the corresponding 7- and (or) 9-mono- or dialkylaminotetracyclines was described. Thus, a mixt. of 17 ml. MeNO<sub>2</sub> and 9.4 ml. fuming HNO<sub>3</sub> at -6.degree. was combined with 4 ml. HF and satd. with BF<sub>3</sub> at -6.degree. to give nitronium tetrafluoroborate (I). A soln. of 1 g. tetracycline in 40 ml. MeNO<sub>2</sub> was stirred 1.5 hrs. at 25.degree. with 0.312 g. I, mixed with 500 ml. ether, and filtered off to give 1.203 g. of a mixt. of II (R = R<sub>3</sub> = H, R<sub>1</sub> = Me, R<sub>2</sub> = NO<sub>2</sub>) and II (R = R<sub>2</sub> = H, R<sub>1</sub> = Me, R<sub>3</sub> = NO<sub>2</sub>), which was sepd. by chromatog. on Celite with 5:8:2:2 heptane-EtOAc-MeOH-H<sub>2</sub>O. Similarly prepd. were mixts. of the 7- and 9-nitro isomers of 11a-chlorotetracycline, II (R = R<sub>1</sub> = R<sub>2</sub> = R<sub>3</sub> = H), 11a-chloro-6-demethyltetracycline, II (R = OH, R<sub>1</sub> = Me, R<sub>2</sub> = R<sub>3</sub> = H), and 11a-chloro-5-hydroxytetracycline. A mixt. (22 g.) of 11a-chloro-6-demethyl-7-(and 9)-nitrotetracycline in 560 ml. water was adjusted to pH 6 with 2N NaOH, mixed with 44 g. NaHSO<sub>4</sub> with readjustment of the pH to 6, stirred 2 hrs., and filtered off to give 6-demethyl-7-(and 9)-nitrotetracycline. A soln. of 5 mg. II (R = R<sub>1</sub> = R<sub>3</sub> = H, R<sub>2</sub> = NO<sub>2</sub>) in 1 ml. MeOH contg. 0.3 ml. 0.2N HCl was mixed with 5 mg. 10% Pd-C and 0.025 ml. 40% CH<sub>2</sub>O to give, after 1.5 hrs. at room temp., II (R = R<sub>1</sub> = R<sub>3</sub> = H, R<sub>2</sub> = NMe<sub>2</sub>). Similarly prepd. by reductive alkylation were II (R = R<sub>3</sub> = H, R<sub>1</sub> = Me, R<sub>2</sub> = NMe<sub>2</sub>), II (R = OH, R<sub>1</sub> = Me, R<sub>2</sub> = NMe<sub>2</sub>, R<sub>3</sub> = H), and a mixt. of II (R = R<sub>3</sub> = H, R<sub>1</sub> = Me, R<sub>2</sub> = NMe<sub>2</sub>) and II (R = R<sub>2</sub> = H, R<sub>1</sub> = Me, R<sub>3</sub> = NMe<sub>2</sub>).

IT 17779-46-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

RN 17779-46-3 CAPLUS  
 CN 2-Naphthacene-9-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-9-nitro-1,11-dioxo- (8CI) (CA INDEX NAME)

Absolute stereochemistry.

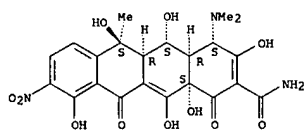


L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS (Continued)

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1968:418923 CAPLUS  
 DOCUMENT NUMBER: 69:18923  
 TITLE: Nitration of tetracyclines  
 INVENTOR(S): Zambrano, Ronald T.  
 PATENT ASSIGNEE(S): American Cyanamid Co.  
 SOURCE: U.S., 3 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3360561		19671226	US	19670619
AB	7- and 9-nitrotetracycline, useful intermediates in the prepn. of biol. active 7- and 9-amino-tetracyclines, were prepd. from substituted tetracyclines by use of KNO <sub>3</sub> in CF <sub>3</sub> CO <sub>2</sub> H (TFA). Thus, to 1.0 g. 6-demethyltetracycline in 10 ml. TFA a soln. of 0.235 g. KNO <sub>3</sub> in 2 ml. TFA was added dropwise, the mixt. stirred 1 hr. at room temp. and then added to 250 ml. ether, and the solids filtered off and purified by chromatog. on Versene-treated Celite to yield 1.72 mg. of a mixt. of 6-demethyl-7-nitrotetracycline (I) and 6-demethyl-9-nitrotetracycline (II); the process yields predominantly the 7-nitro isomer.			
IT	17779-46-3P			
	RI: SPN (Synthetic preparation); PREP (Preparation)			
	(prepn. of)			
RN	17779-46-3 CAPLUS			
CN	2-Naphthacene-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-9-nitro-1,11-dioxo- (8CI) (CA INDEX NAME)			

Absolute stereochemistry.

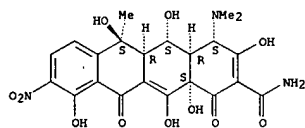


L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1968:29484 CAPLUS  
 DOCUMENT NUMBER: 68:29484  
 TITLE: Substituted 7 and 9-amino tetracyclines  
 INVENTOR(S): Winterbottom, Robert; Kissman, Henry M.  
 PATENT ASSIGNEE(S): American Cyanamid Co.  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3345410		19671003	US	19660314
AB	The title compds. Ia (R1 or R2 are amine groups) are useful as antibacterial agents. A 17 cc. portion of MeNO <sub>2</sub> and 9.4 cc. of fuming HNO <sub>3</sub> were mixed in a polyethylene container as -6.degree. in a bath of 20% iso-PrOH, 80% H <sub>2</sub> O and Dry Ice. A 4 cc. portion of HF was added and the mixt. satd. with BF <sub>3</sub> at -6.degree. until BF <sub>3</sub> fumes were released. The white cryst. ppt. was filtered through a glass funnel under N and washed with 20 cc. MeNO <sub>2</sub> and 20 cc. of FZCClCCl <sub>2</sub> F. The nitronium tetrafluoroborate (I), was dried in vacuo at 60-70.degree. for 1.5 hrs. A 1.0 g. of tetracycline neutral was dissolved in 40 cc. of MeNO <sub>2</sub> . A 0.312 g. portion of I was added and the soln. stirred 1.5 hrs. at 25.degree.. To this was added 500 cc. of Et <sub>2</sub> O. The product was dried at 35.degree. to yield 1.203 g. of the fluoroboric acid salt. A 100 g. portion of acid washed Celite was suspended in a soln. of 20 g. of EDTA di-Na salt in 500 cc. of 2N HCl and the soln. stirred for 20 hrs. at room temp. The Celite was filtered through a sintered glass funnel and washed first with 6 l. of distd. H <sub>2</sub> O by displacement and secondly with 500 cc. of MeOH by displacement. The Celite was then used with the system C7H16AcOEt:MeOH-H <sub>2</sub> O (5:8:2:2) to effect a sepn. between 6-demethyl-7-nitrotetracycline and 6-demethyl-9-nitrotetracycline. The following Ia were prepd. and uv spectral data was given (R1 R2, and R3 given): NO <sub>2</sub> , H, OH; H, NO <sub>2</sub> , OH; Me <sub>2</sub> N, H, H; Et <sub>2</sub> N, H, H; Me <sub>2</sub> N, H, OH; H, Me <sub>2</sub> N, H. Also prepd. were the following 6-demethyltetracyclines: 11a-blocked-, 11a-blocked-7-nitro-, 11a-blocked-9-nitro-, 11a-chloro-7(9)nitro-, 11a-blocked-5-hydroxy- and 11a-blocked-5-hydroxy-7(9)nitro-.			
IT	17779-46-3P			
	RI: SPN (Synthetic preparation); PREP (Preparation)			
	(prepn. of)			
RN	17779-46-3 CAPLUS			
CN	2-Naphthacene-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-9-nitro-1,11-dioxo- (8CI) (CA INDEX NAME)			

Absolute stereochemistry.

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS (Continued)



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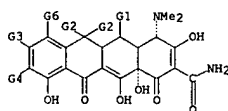
L8 ANSWER 1 OF 7 MARPAT COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 136:167218 MARPAT  
 TITLE: Preparation of 8-substituted tetracycline derivatives for pharmaceutical use as antibacterial agents  
 INVENTOR(S): Nelson, Mark  
 PATENT ASSIGNEE(S): Trustees of Tufts College, USA  
 SOURCE: PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012170	A1	20020214	WO 2000-US21366	20000804
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LA, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2002004404	A2	20020117	WO 2001-US20558	20010629
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-216656P 20000707  
 WO 2000-US21366 20000804

AB 8-Substituted tetracycline derivs., such as I (R8 = Ph, C6H4NO2, halogen, alkynyl, R9 = H, NH2), were prepd. for therapeutic use as antibacterial agents. Thus, 8-bromodoxycycline I (R8 = Br, R9 = H) was prepd. via a series of synthetic steps starting from the hydrochloride salt of doxycycline I (R8 = R9 = H). MIC values for the prepd. tetracycline derivs. against *E. coli*, *S. aureus*, and *Enterococcus* sp. were detd.

MYSTR 1



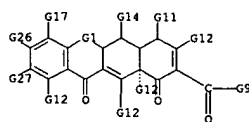
L8 ANSWER 2 OF 7 MARPAT COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 136:102232 MARPAT  
 TITLE: Preparation of 7-substituted tetracycline derivatives for pharmaceutical use as antibacterial agents  
 INVENTOR(S): Nelson, Mark L.; Frechette, Roger; Viskl, Peter; Ismail, Mohamed; Bowser, Todd; Bhatia, Beena; Messersmith, David; McIntyre, Laura; Koza, Darrell; Rennie, Glen; Sheahan, Paul; Hawkins, Paul; Verma, Atul; Warchol, Tad; Bandarage, Upul  
 PATENT ASSIGNEE(S): Trustees of Tufts College, USA; Paratek Pharmaceuticals, Inc.  
 SOURCE: PCT Int. Appl., 97 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004407	A2	20020117	WO 2001-US20766	20010629
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LA, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-216760P 20000707  
 US 2001-275576P 20010313

AB 7-Substituted tetracycline derivs., such as I (R7 = NO2, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, amino, arylalkenyl, arylalkynyl, aminoalkyl, etc.), were prepd. for therapeutic use as antibacterial agents. Thus, 7-phenylsancycline I (R7 = Ph) was prepd. in 42% yield by arom. coupling reaction of 7-iodosancycline I (R7 = iodo) with Ph(OH)2 using Pd(OAc)2 and Na2CO3 in MeOH under an argon atm. at r.t. for 2 h. The prepd. tetracycline derivs. were tested for antibacterial activity against *Escherichia coli*, *Enterococcus hirae*, and *Staphylococcus aureus*.

MYSTR 1



G1 - 32

L8 ANSWER 1 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)  
 G1 = OH  
 G2 = OH  
 G4 = NH2  
 MPL: claim 1  
 NTE: and pharmaceutically acceptable salts  
 NTE: also incorporates broader disclosure  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)



G7 = OH  
 G9 = NH2  
 G11 = NH2  
 G12 = OH  
 G14 = 60

G(0) G15

G18 = (1-3) CH2  
 MPL: claim 1  
 NTE: and pharmaceutically acceptable salts

L8 ANSWER 3 OF 7 MARPAT COPYRIGHT 2002 ACS

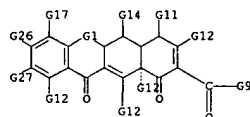
ACCESSION NUMBER: 136:102231 MARPAT  
 TITLE: Preparation of 9-substituted minocycline derivatives for pharmaceutical use as antibacterial agents  
 INVENTOR(S): Nelson, Mark L.; Frechette, Roger; Viski, Peter; Ismail, Mohamed; Bowser, Todd; Dumornay, Jimmy; Rennie, Glen; Liu, Gui; Koza, Darrell; Sheahan, Paul; Stapleton, Karen; Hawkins, Paul; Bhatia, Beena; Verma, Atul; McIntyre, Laura; Warchol, Tad  
 PATENT ASSIGNEE(S): Trustees of Tufts College, USA; Paratek Pharmaceuticals, Inc.  
 SOURCE: PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004406	A2	20020117	WO 2001-US20721	20010629
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:  
 US 2000-216659P 20000707  
 US 2001-275621P 20010313

AB 9-Substituted minocycline derivs., such as I [R9 = NO2, N3, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, amino, arylalkenyl, arylalkynyl, aminoalkyl, etc.], were prepd. for therapeutic use as antibacterial agents. Thus, minocycline deriv. I (R9 = CH2NHCNHC6H4-4-OCF3) was prepd. in 37% yield by reaction of the tetracycline salt of 9-(aminomethyl)minocycline I (R9 = CH2NH2) and F3CO-4-C6H4NCO using Et3N in DMF at 25.degree. for 2 h. The prepd. minocycline derivs. were tested for antibacterial activity against *Escherichia coli*, *Enterococcus hirae*, and *Staphylococcus aureus*.

MSTR 1



G1 = 32

L8 ANSWER 3 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)



G7 = OH  
 G9 = NH2  
 G11 = NH2  
 G12 = OH  
 G14 = 60

G10 G15

G27 = Ak<EC (1-) C, BD (0-) D (0-) T> (SO (1-) G34)  
 MPL: claim 1  
 NTE: and pharmaceutically acceptable salts

L8 ANSWER 4 OF 7 MARPAT COPYRIGHT 2002 ACS

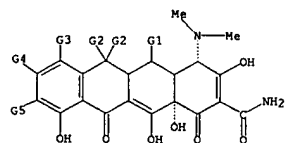
ACCESSION NUMBER: 136:102229 MARPAT  
 TITLE: Preparation of 7,8 and 9-substituted tetracycline derivatives  
 INVENTOR(S): Nelson, Mark L.; Koza, Darrell  
 PATENT ASSIGNEE(S): Trustees of Tufts College, USA  
 SOURCE: PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004404	A2	20020117	WO 2001-US20558	20010629
W: AE, AG, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2002012170	A1	20020214	WO 2000-US21366	20000804
W: AE, AG, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:  
 US 2000-216659P 20000707  
 WO 2000-US21366 20000804

AB The 7,8 and 9-substituted tetracycline derivs. I (R1 = H, OH; R2, R3 = H, Me, OH; R4 = H, alkenyl, alkynyl, Ph, halophenyl, acyl, phenylalkynyl, heteroaryl, dimethylamino; R5 = H, Ph, nitrophenyl, halo, alkynyl; R6 = H, amino, acetamide, alkynyl; at least one of R4, R5, and R6 is not H) and their pharmaceutically acceptable salts were as antibacterial agents. Thus, tetracycline underwent iodination with NIS to give a mixt. of 7- and 9-iodotetracycline, of which the 7- isomer was treated AsPh3 in presence of Pd(PPh3)2Cl2 and CuI to give 7-phenyltetracycline. I was screened to detn. their in vitro antibacterial min. inhibitory concn. (no data).

MSTR 1



L8 ANSWER 4 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)

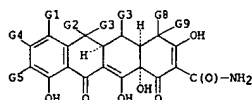
G1 = OH  
 G2 = OH  
 G5 = ethynyl  
 MPL: claim 1  
 NTE: and pharmaceutically acceptable salts

L8 ANSWER 5 OF 7 MARPAT COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 135:371567 MARPAT  
 TITLE: Synthesis and phototoxicity of 4-dedimethylaminotetracycline derivatives  
 INVENTOR(S): Ashley, Robert A.; Hlavka, Joseph J.  
 PATENT ASSIGNEE(S): Collagenex Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

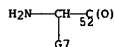
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001087823	A1	20011122	WO 2001-US16272	20010518
V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NC, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:				
US 1998-195013 19981118				
US 2000-479604 20000107				
US 2000-573654 20000518				

AB The present invention provides new chem. modified 4-dedimethylaminotetracycline compds. that can be substituted with acyl, alkenyl, or alkynyl groups at the 7, 8, and/or 9 positions. Other tetracycline compds. include the 4-dedimethylaminotetracycline derivs. with an oxime group, NH-Alkyl, or N-NH-Alkyl group substituted at the C4 position as well as C2 Mannich derivs. The present invention also provides a method of treating a mammal suffering from conditions or diseases by administering to the mammal an effective amt. of the new chem. modified tetracycline compds.

## MSTR 4



G3 = OH  
 G5 = 52

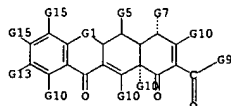


L8 ANSWER 6 OF 7 MARPAT COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 135:117208 MARPAT  
 TITLE: Tetracycline compounds, their, and their use preparation for treatment of Cryptosporidium parvum-related disorders  
 INVENTOR(S): Levy, Stuart B.; Nelson, Mark L.  
 PATENT ASSIGNEE(S): Trustees of Tufts College, USA  
 SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001052858	A1	20010726	WO 2001-US2093	20010123
V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:				
US 2000-178519P 20000124				

AB Methods and pharmaceutical compds. for treating Cryptosporidium parvum-related disorders in a mammal are disclosed. Several tetracycline compds. are prepd. (e.g. 13-(Phenylthio)-5-hydroxy-6-.alpha.-deoxytetracycline), which are useful for treating Cryptosporidium parvum-related disorders.

## MSTR 1



G1 = 35



G5 = CHO  
 G6 = OH  
 G7 = NH2  
 G9 = NH2  
 G10 = OH  
 G13 = Bu-t  
 MPL: claim 2  
 NTE: and pharmaceutically acceptable salts  
 NTE: additional heteroatom interruptions also claimed

L8 ANSWER 5 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)

G8 = 58

HN-G11

MPL: claim 2  
 NTE: and pharmaceutically acceptable and unacceptable salts

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

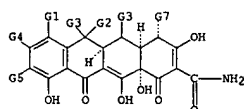
L8 ANSWER 7 OF 7 MARPAT COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 132:260702 MARPAT  
 TITLE: Tetracycline derivatives for inhibition of cataract formation  
 INVENTOR(S): Ryan, Maria Emanuel; Golub, Lorne M.; Ramamurthy, Nungavaram S.  
 PATENT ASSIGNEE(S): The Research Foundation of State University of New York, USA  
 SOURCE: PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000018353	A2	20000406	WO 1999-US22354	19990928
WO 2000018353	A3	20000706		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LA, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1124558	A2	20010822	EP 1999-949910	19990928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1998-102056P 19980928  
 WO 1999-US22354 19990928

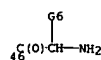
AB Methods of reducing the risk of cataract development in a mammal are provided and include administering to the mammal an effective amt. of a tetracycline deriv. A preferred tetracycline deriv. is 6.alpha.-deoxy-5-hydroxy-4-dedimethylaminotetracycline.

# FIGURE 2



G3 = OH  
 G5 = 46

L8 ANSWER 7 OF 7 MARPAT COPYRIGHT 2002 ACS (Continued)



G7 = 51



DER: and pharmaceutically acceptable and unacceptable salts  
 MPL: claim 16  
 NTE: substitution is restricted



=> d his

(FILE 'HOME' ENTERED AT 11:30:24 ON 19 MAR 2002)

FILE 'REGISTRY' ENTERED AT 11:30:29 ON 19 MAR 2002

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 5 S L1 FULL

FILE 'USPATFULL' ENTERED AT 11:31:40 ON 19 MAR 2002

L4 0 S L3

FILE 'CAPLUS' ENTERED AT 11:32:05 ON 19 MAR 2002

L5 4 S L3

FILE 'MARPAT' ENTERED AT 11:34:41 ON 19 MAR 2002

L6 1 S L3

L7 8 S L3 FULL

L8 7 S L7/COM

=> d ibib ab

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1966103979 CAPLUS  
 DOCUMENT NUMBER: 64:103979  
 ORIGINAL REFERENCE NO.: 64:19523b-r,19524a-a  
 TITLE: Arylazotetracyclines  
 INVENTOR(S): Rennhard, Hans H.; Stephens, Charles R., Jr.  
 PATENT ASSIGNEE(S): Charles Pfizer & Co., Inc.  
 SOURCE: 15 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3239499		19660308	US	19610519

AB Compd. of the general formula I, where Y or Y1 is an arylazo group, are prepd. and the azo compds. are reduced to give amino compds. Thus, 1 mole PhNH2 is diazotized and coupled with 1 mole tetracycline to give 7-phenylazotetracycline, which is dissolved in 0.01N HCl (MeOH) to give a soln., .lambda.max. 225 m.mu. and 435 m.mu.. On boiling the acid soln., the absorption changed to .lambda.max. 240 m.mu., 375 m.mu., and 530 m.mu.. Similarly prepd. are 7-phenylazo-N4-benzyl-6-deoxytetracycline mono-Me ether (II), the 11,12-enolic benzylamino enamine of I (X = NMe2, X1 = X2 = Z = H, R = Me, Y = Cl, Y1 = m-O2NC6H4N:N), the 11,12-enolic benzylamino enamine of I (X = NMe2, X1 = X2 = R = Y = Z = H, Y = PhN:N), I (X = NMe2, X1 = X2 = R = Y1 = H, Y = p-ClC6H4N:N, Z = F). I (1 part) is mixed with 20 parts MeOH and 1/5 part 5% Pd-C and hydrogenated at 30-45 psi. and 30.degree. to give 7-amino-6-deoxytetracycline mono-Me ether (III). (III) mono-Me ether is treated with 6N H2SO4 to give III sulfate and a soln. of III sulfate is adjusted to pH 5.5 to give III. Similarly prepd. are the following I (X = NMe2, Z = H) (X1, X2, R, Y, Y1, and .lambda.max. in m.mu.): H, H, H, H, NH2, --; H, OH, Me, NH2, H, --; H, H, Me, H, NH2, --; OH, H, Me, NH2, H, --; H, H, H, NH2, H, 267 and 345 [14 in 0.01N HCl (MeOH)]; H, OH, H, H, NH2, --. 9-Amino-6-deoxytetracycline (7 g.) is diazotized, the product is treated with 220 g. 40% HBF4 to give the diazonium fluoroborate salt, and the salt is decompd. to give 9-fluoro-6-deoxytetracycline. Similarly prepd. are the following I (Z = H) (X1, X2, R, Y, and Y1 given): H, H, H, Me, CN, H, Me, OH, H, H, thiocyanato; NMe2, H, OH, H, cyanato, H (HCl salt prepd.); NMe2, H, H, H, NO2, H [sulfate .lambda.max. 263 m.mu. and 354 m.mu. (0.01N HCl-MeOH)]; NMe2, OH, H, Me, arsenoxy, H, NMe2, H, OH, H, H, triazo; NMe2, H, H, H, H, iodide, .lambda.max. 266 m.mu. and 350 m.mu. (0.01N HCl) and 230 m.mu., 243 m.mu., and 392 m.mu. (0.01N NaOH), p-MeC6H4SO3H salt prepd.; NMe2, H, H, H, Cl, p-MeC6H4SO3H salt prepd.; NMe2, H, H, H, Br, p-MeC6H4SO3H and 2-ClOH7SO3H salts prepd.; NMe2, H, H, Me, Cl, H. A mixt. of 5 g. 6-deoxy-7-chlorotetracycline (IV) and 25 ml. PhCH2NH2 is heated .apprx. 4 hrs. on a steam bath to give the 11, 12-enolic benzylamino enamine of IV. Similarly prepd. are the 11,12-enolic ethylamino enamine of I (X = NMe2, X1 = OH, X2 = Y = Y1 = Z = H, R = Me) and the 11,12-enolic benzylamino enamine, .lambda.max. 268 m.mu. and 387 m.mu., of I (X = NMe2, X1 = X2 = R = Y = Y1 = Z = H). A soln. of 1 part I (X = NMe2, X1 = X2 = Y = Y1 = Z = H, R = Me)-HCl, 5 parts PhCH2Br, and 5 parts propylene oxide in 20 parts Me2CO is refluxed 4 hrs. to give N4-benzyl-6-deoxytetracycline betaine (V), .lambda.max. 349 m.mu. (0.01N HCl (MeOH)). V (20 g.) in 400 ml. dioxane is treated with 2 g. CH2N2 in 100 ml. ether at 10.degree. to give V 11,12-enolic mono-Me ether, .lambda.max. 352 m.mu.. A mixt. of 1 part I

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS (Continued)

(X = NMe2, X1 = X2 = Y = Y1 = Z = H, R = Me) and 20 parts 3% HCl in cooled to .apprx. 5.degree., 2 parts Zn dust is added in .apprx. 20 min., and the mixt. is agitated with CHCl3 to give I (X = X1 = X2 = Y = Y1 = Z = H, R = Me) (VI). VI is added to a soln. of Na in MeOH, a soln. of PhCH2Cl in MeOH is added, and the mixt. is heated .apprx. 20 min. to give VI 11,12-enolic monobenzyl ether. I (X = NMe2, X1 = X2 = R = Y1 = Z = H, Y = SH) (1 g.) in 20 ml. 0.5N NaOH is treated with Me2SO4 to give I (X = NMe2, X1 = X2 = R = Y1 = Z = H, Y = SMe). A soln. of 10.94 g. I (X = NMe2, X1 = X2 = R = Y = Y1 = H, Z = Cl) in 40 ml. HF is treated with 2.1 g. KNO3, kept 16 hrs. at 0.degree., and treated with 5 ml. 40% HClO4 to give I (X = NMe2, X1 = X2 = R = Y = H, Y1 = NO2, Z = Cl) HClO4 (VII). VII (4 g.) in 200 ml. MeOH is hydrogenated at 25.degree. in the presence of 2 g. 5% Pd-C to give I (X = NMe2, X1 = X2 = R = Y = Z = H, Y1 = NH2) (VIII). VIII (4.34 g.) in 40 ml. pyridine is treated with 20 ml. acetoformic acid to give I (X = NMe2, X1 = X2 = R = Y = Z = H, Y1 = HCONH). Similarly prepd. is I (X = NMe2, X1 = X2 = R = Y = Z = H, Y1 = AcNH). A mixt. of 2 g. I (X = NMe2, X1 = X2 = R = Y = Y1 = Z = H) HCl (IX), 0.8 g. N-chlorosuccinimide (X), and 30 ml. F3CCO2H is heated 5 min. to give I (X = NMe2, X1 = X2 = R = Y = Y1 = H, Z = Cl) (XI). A mixt. of X1, 0.8 g. X, and 17 ml. F3CCO2H is heated 30 min. to give I (X = NMe2, X1 = X2 = R = Y1 = H, Y = Z = Cl), .lambda.max. 270 m.mu. and 358 m.mu. (0.01N HCl (MeOH)). A mixt. of 4.6 g. IX in 60 ml. MeOH is cooled to 0.degree. under N, treated with 20 ml. N NaOMe (MeOH), and treated 24 hrs. with perchloryl fluoride to give I (X = NMe2, X1 = X2 = R = Y = Y1 = H, Z = F), .lambda.max. 270 m.mu. and 350 m.mu..

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Page 11

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## L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1966:103978 CAPLUS  
 DOCUMENT NUMBER: 64:103978  
 ORIGINAL REFERENCE NO.: 64:19522F-h,19523a-b  
 TITLE: Amidinohydrazone of polycyclic nonaromatic compounds  
 INVENTOR(S): Meyer, Karlheinz; Schuetz, Siegmund; Stoepel, Kurt; Kroneberg, Hans G.  
 PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
 SOURCE: 4 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1211176		19660224	DE	19640402

AB The title compds. are prepd. from ketones and salts of H<sub>2</sub>N-NHC(:NH)NHR (I), and cause increased contractions of heart muscles. Various cardiac responses are described. To a soln. of 50 g. 2,6-decalindiol in 700 ml. C<sub>6</sub>H<sub>6</sub> was added during 4 hrs. at 6.degree. a mixt. of 70 g. Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>, 50 ml. AcOH, 95 ml. concd. H<sub>2</sub>SO<sub>4</sub>, and 310 ml. H<sub>2</sub>O. The mixt. was stirred 2.5 hrs., let stand overnight at room temp., and sepd. The org. layer was washed, dried, and evapd. to give 2,6-decalindione (II). A soln. of 6-AcC<sub>10</sub>H<sub>6</sub>OH-2 in 140 ml. dioxane was hydrogenated over 7 g. 5% Ru-Al<sub>2</sub>O<sub>3</sub> to 6-(MeCHOH)C<sub>10</sub>H<sub>16</sub>OH-2 (III). A soln. of 28 g. III in 300 ml. AcOH was treated with a soln. of 18 g. CrO<sub>3</sub> in 500 ml. 95% AcOH. After 12 hrs., the mixt. was poured into 10 l. of H<sub>2</sub>O and extd. with CHCl<sub>3</sub>. The exts. were washed, dried, and distd. to give 15 g. 6-acetyl-2-decalone (IV), b.p. 121.degree.. A mixt. of 1 g. 3-oxo-7-methoxy-1,2,3,9,10,11-hexahydrophenanthrene, 30 mg. 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, and 20 ml. 2-methyl-2-ethyl-1,3-dioxolane was heated 6 hrs. to distil out 8 ml. butanone, the residue taken up in C<sub>6</sub>H<sub>6</sub>, washed with aq. NaHCO<sub>3</sub>, dried, and evapd. The residue was chromatographed on Al<sub>2</sub>O<sub>3</sub> and the C<sub>6</sub>H<sub>6</sub> eluted to give 700 mg. 3,3-ethylenedioxy-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene (V), m. 73.degree.. Birch redn. of V and acid cleavage of the resulting enol ether gave 2,6-dioxo-1,2,3,4,6,7,8,9,10,14-decahydrophenanthrene (VI), yellow oil. A soln. of 4.6 g. VI in MeOH and a soln. of 8 g. I (R = H, H<sub>2</sub>CO<sub>3</sub>) (VII) in methanolic HCl (pH 2) were stirred 2 days at room temp. The solid was removed, washed with AcMe, dissolved in MeOH, and reprecipd. with Et<sub>2</sub>O to give 3.2 g. decalindione, 6-bis(amidinohydrazone)-2HCl, m. 308.degree. (decompn.); mouse toxicity (intravenous) is 12.5-16 mg./kg. Compds. similarly prepd. are tabulated. a: 2,11-dioxo-1,2,9,10,11,18-hexahydrochrysene. b: 9-methyl-DELTA.5,10-decalin-1,6-dione. reactants, bis(amidinohydrazone)-2HCl; mouse toxicity; diketone, R in I, m.p., mg./kg.: II, CH<sub>2</sub>CH<sub>2</sub>NEt<sub>2</sub>HCl, 255-7.degree. (decompn.), 3.5-4; III, NO<sub>2</sub>, 202.degree. (decompn.); -- IV, H.H<sub>2</sub>CO<sub>3</sub>, 88.degree., 9.16; VI, H.H<sub>2</sub>CO<sub>3</sub>, 215.degree. (decompn.), 5-6.3; cis-a, H.H<sub>2</sub>CO<sub>3</sub>, 360.degree., 6.5-8; trans-a, H.H<sub>2</sub>CO<sub>3</sub>, 360.degree., 12.5-16; cis-a, CH<sub>2</sub>CH<sub>2</sub>NEt<sub>2</sub>HCl, 106.degree., (decompn.) 16-20; b, H.H<sub>2</sub>CO<sub>3</sub>, 290.degree., --;

## L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1964:16523 CAPLUS  
 DOCUMENT NUMBER: 60:16523  
 ORIGINAL REFERENCE NO.: 60:2875b-e  
 TITLE: Halotetracycline-6,12-hemiketals  
 INVENTOR(S): Blackwood, Robert K.; Rennhard, Hans H.; Beereboom, John J.; Stephens, Charles R., Jr.  
 PATENT ASSIGNEE(S): Chas. Pfizer & Co., Inc.  
 SOURCE: 9 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3109007		19631029	US	19621002

AB Tetracyclines are treated with a halogenating agent, such as ClFO<sub>3</sub> or N-chlorosuccinimide, to give the title compds., which can be used as antibiotics. Thus, a suspension of 20 g. tetracycline base in 800 ml. H<sub>2</sub>O is cooled to 0.degree., 45 ml. 2N NaOH is added, ClFO<sub>3</sub> bubbled through the mixt. (which is under N) until the pH is approx. 7, excess ClFO<sub>3</sub> eliminated with a stream of N, and the ppt. obtained filtered off, washed with H<sub>2</sub>O, and dried in vacuo at room temp. to give 7.9-8.5 g. 11a-fluorotetracycline 6,12-hemiketal, .lambda. 267 and 340 m.mu.. Similarly prepd. are the following I (R, X, X', X'', and Y given): Me, F, H, H, OH, .lambda. 265 and 336 m.mu., Me, Cl, H, H, H, .lambda. 267 and 340-342 m.mu.; Me, Cl, Cl, H, H, Me, Cl, H, H, OH, infrared 6.12, 6.35, 6.66, 6.85, 7.22, 7.55, 7.75, 7.92, 8.14, 8.36, 8.78, 9.18, and 9.43 .mu.; Me, F, H, NO<sub>2</sub>, H, Me, F, H, NH<sub>2</sub>, H, Me, F, H, HCONH, H, Me, F, H, AcNH, H, Me, F, Cl, NO<sub>2</sub>, H, H, Cl, H, NH<sub>2</sub>, H, Me, Cl, H, NO<sub>2</sub>, OH, Me, Cl, H, NH<sub>2</sub>, OH. Also prepd. are 9-nitro-11-chloro-6-deoxy-6-demethyl-6-methylene-5-oxytetracycline, 5-hydroxy-9-aminotetracycline, 11 a-chloro-6-deoxy-6-demethyl-6-methylenetetracycline (II), II-HF, II-HCl (infrared 5.70 .mu.), 11a-fluoro-6-deoxy-6-demethyl-6-methylenetetracycline perchlorate, 6-deoxy-6-demethyl-6-methylenetetracycline (III), III-HCl, 6-demethyl-7-chloro-9-aminotetracycline, 6-demethyl-9-aminotetracycline.

## L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1964:461534 CAPLUS  
 DOCUMENT NUMBER: 61:61534  
 ORIGINAL REFERENCE NO.: 61:10636a-c  
 TITLE: Anthraquinone derivatives  
 INVENTOR(S): Hopff, Heinrich; Bollinger, Walter; Wick, Arnold  
 PATENT ASSIGNEE(S): J. R. Geigy A.-G.  
 SOURCE: 3 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 957150		19640506	GB	19630105

AB Ring closure of o-(pentaethylbenzoyl)benzoic acid (I) and oxidn. of the product gives 5,6,7,8-tetraethylanthraquinone-1-carboxylic acid (II). Thus, I 6 in SOC<sub>1</sub>235 was boiled 4 hrs., the soln. evapd., the residue in CS<sub>2</sub> 35 treated with AlCl<sub>3</sub> 4.5, the mixt. stirred 3 hrs., then refluxed 1 hr., and treated with ICl-HCl, Et<sub>2</sub>O-extd., and the ext. washed with 5 times. 150 ml. 0.5N NaOH soln., acidified, and evapd. to give 5,6,7,8-tetraethyl-10-methylantracene-1-carboxylic acid (III) 2 parts, m. 179-9.5.degree. (EtOAc-petr. ether). III 2 and K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> 24 in AcOH 200 parts was refluxed 2 hrs. Evapn. and extrn. with 0.5N NaOH gave the Na salt of II; acidification gave II, m. 240.degree. (EtOAc or AcOH).

## L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1964:16522 CAPLUS  
 DOCUMENT NUMBER: 60:16522  
 ORIGINAL REFERENCE NO.: 60:2874b,2875a-b  
 TITLE: Molecular compounds of oxytetracycline  
 INVENTOR(S): Ogawa, Hiroshi; Inoue, Shigeharu  
 PATENT ASSIGNEE(S): Meiji Confectionary Ltd.  
 SOURCE: 5 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 38017044		19630904	JP	19600318

AB To 3.5 cc. aq. suspension of 500 mg. oxytetracycline-H<sub>2</sub>O is added 0.15 cc. 50% H<sub>2</sub>SO<sub>4</sub>, oxalic acid dihydrate added, and the mixt. kept overnight to give 470 mg. mol. compd. of oxytetracycline sulfate with oxalic acid, plates, m. 152-3.degree. (decompn.). Similarly prepd. are the following mol. compds. of oxytetracycline salts with org. substance (name of salt, org. compd., appearance, and m.p. given): hydrochloride, oxalic acid, --, 145-7.degree.; sulfate, pyrazine, --, 177-8.degree.; hydrochloride, pyrazine, --, 166-8.degree.; sulfate, AcOH, needles, --; sulfate, formamide, plates, --; sulfate, fumaric acid, plates, --; sulfate, ClCH<sub>2</sub>CO<sub>2</sub>H, needles, --; sulfate, succinic acid, needles, --.

=> d his

(FILE 'HOME' ENTERED AT 11:30:24 ON 19 MAR 2002)

FILE 'REGISTRY' ENTERED AT 11:30:29 ON 19 MAR 2002

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 5 S L1 FULL

FILE 'USPATFULL' ENTERED AT 11:31:40 ON 19 MAR 2002

L4 0 S L3

FILE 'CAPLUS' ENTERED AT 11:32:05 ON 19 MAR 2002

L5 4 S L3

FILE 'MARPAT' ENTERED AT 11:34:41 ON 19 MAR 2002

L6 1 S L3

L7 8 S L3 FULL

L8 7 S L7/COM

FILE 'CAOLD' ENTERED AT 11:37:47 ON 19 MAR 2002

L9 3 S L3

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FILE 'CAOLD' ENTERED AT 11:38:18 ON 19 MAR 2002  
SEL AN 1-

FILE 'CAPLUS' ENTERED AT 11:38:36 ON 19 MAR 2002

L10 5 S E1-E3/OREF

FILE 'BEILSTEIN' ENTERED AT 11:39:37 ON 19 MAR 2002

L11 0 S L1 FULL

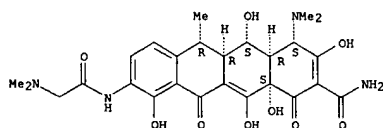
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L6 ANSWER 1 OF 4 USPATFULL  
 ACCESSION NUMBER: 1998:13883 USPATFULL  
 TITLE: 9- (substituted amino) -alpha-6-deoxy-5-oxo  
 tetraacycline derivatives, their preparation and their  
 use as antibiotics  
 INVENTOR(S): Su, Wei-guo, New London, CT, United States  
 PATENT ASSIGNEE(S): Pfizer Inc., New York, NY, United States (U.S.  
 corporation)  
 NUMBER KIND DATE  
 PATENT INFORMATION: US 5834450 19981110  
 WO 9522529 19950824  
 APPLICATION INFO.: US 1996-682640 19960722 (8)  
 WO 1995-1B26 19950112  
 19960722 PCT 371 date  
 19960722 PCT 102(e) date  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Lambkin, Deborah C.  
 LEGAL REPRESENTATIVE: Richardson, P. C., Ginsburg, P. H., Appleman, Jolene W.  
 NUMBER OF CLAIMS: 8  
 EXEMPLARY CLAIM: 1  
 LINE COUNT: 1136  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to compounds of the formula ##STR1## wherein  
 R.sup.1, R.sup.2 and R.sup.3 are defined as in the specification and the  
 pharmaceutically acceptable salts of such compounds. Compounds of the  
 formula I exhibit antibiotic activity against a wide range of  
 gram-positive and gram-negative organisms, including organisms that are  
 resistant to tetracycline antibiotics.

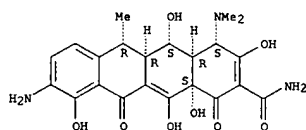
IT 161320-58-7  
 (prepn. of aminoacylaminoxyacyclines)  
 RN 161320-58-7 USPATFULL  
 CN 2-Naphthacene-carboxamide, 4-(dimethylamino)-9-  
 [(dimethylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-  
 3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride,  
 [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



● 2 HCl

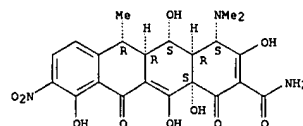
L6 ANSWER 1 OF 4 USPATFULL (Continued)



● 2 HCl

L6 ANSWER 1 OF 4 USPATFULL (Continued)  
 IT 171807-98-0P 171807-99-1P, 9-Aminoxyacycline  
 dihydrochloride  
 (prepn. of aminoacylaminoxyacyclines)  
 RN 171807-98-0 USPATFULL  
 CN 2-Naphthacene-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-  
 3,5,10,12,12a-pentahydroxy-6-methyl-9-nitro-1,11-dioxo-,  
 [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]-,  
 sulfate (2:1) (salt) (9CI) (CA INDEX NAME)  
 CH 1  
 CRN 120793-45-5  
 CMF C22 H23 N3 O10  
 CODES 1:4S2:4A,4AA,5A,5AA,6A,12AA

Absolute stereochemistry.



CH 2

CRN 7664-93-9  
 CMF H2 O4 S



RN 171807-99-1 USPATFULL  
 CN 2-Naphthacene-carboxamide, 9-amino-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-,  
 dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL  
 ACCESSION NUMBER: 97:51989 USPATFULL  
 TITLE: 9-[(substituted glycol)amido]-6-(substituted)-5-hydroxy-  
 6-deoxytetracyclines  
 INVENTOR(S): Lee, Ving Jick, 19 Shuart Rd., Monsey, NY, United  
 States 10952  
 Buckwalter, Brian Lee, 102 Ovington Rd., Yardley, PA,  
 United States 19067  
 Barden, Timothy Claude, 3424 Stafford Pl., Holland, PA,  
 United States 15966

NUMBER KIND DATE  
 PATENT INFORMATION: US 5639742 19970617  
 APPLICATION INFO.: US 1994-297464 19940829 (8)  
 RELATED APPLN. INFO.: Division of Ser. No. US 1993-42302, filed on 2 Apr  
 1993, now patented, Pat. No. US 5371076  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Gerstl, Robert  
 NUMBER OF CLAIMS: 72  
 EXEMPLARY CLAIM: 1  
 LINE COUNT: 2551  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

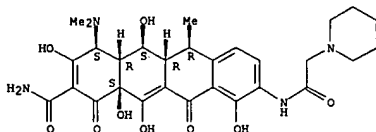
AB The invention provides compounds of the formula: ##STR1## wherein R,  
 R.sup.1, R.sup.2 and W are defined in the specification. These compounds  
 are useful as antibiotic agents.

IT 161320-23-6P 161320-24-7P 161320-25-8P  
 161320-26-9P 161320-27-0P 161320-28-1P  
 161320-29-2P 161320-30-5P 161320-31-6P  
 161320-32-7P 161320-33-8P 161320-34-9P  
 161320-35-0P 161320-36-1P 161320-37-2P  
 161320-38-3P 161320-39-4P 161320-40-7P  
 161320-41-8P 161320-42-9P 161320-43-0P  
 161320-44-1P 161320-45-2P 161320-46-3P  
 161320-47-4P 161320-48-5P 161320-49-6P  
 161320-50-9P 161320-51-0P 161320-52-1P  
 161320-53-2P 161320-54-3P 161320-55-4P  
 161320-56-5P 161320-57-6P 161320-58-7P  
 161320-59-8P 161320-60-1P 161320-61-2P  
 161320-62-3P 161320-63-4P 161320-64-5P  
 161320-65-6P 161320-66-7P 161320-67-8P  
 161320-68-9P 161320-69-0P 161320-70-3P  
 161320-71-4P 161320-72-5P 161320-73-6P  
 161320-74-7P 161320-75-8P 161320-76-9P  
 161320-77-0P 161320-78-1P 161320-79-2P  
 161320-80-5P 161320-81-6P 161320-82-7P  
 161320-83-8P 161320-84-9P 161320-85-0P  
 161320-86-1P 161320-87-2P 161320-88-3P  
 161320-89-4P 161320-90-7P 161320-91-8P  
 161320-92-9P 161320-93-0P 161320-94-1P  
 161320-95-2P 161320-96-3P 161320-97-4P  
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 161321-10-4P 161321-11-5P 161321-12-6P  
 161321-13-7P 161321-14-8P 161321-15-9P  
 (prepn. of 9-[(N-substituted-glycol)amido]-6-methyl(ene)-5-hydroxy-6-  
 deoxytetracyclines as antibiotics)  
 RN 161320-23-6 USPATFULL

L6 ANSWER 2 OF 4 USPATFULL (Continued)

CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

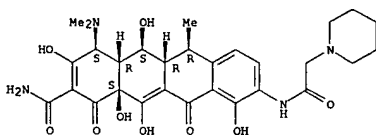
Absolute stereochemistry.



RN 161320-24-7 USPATFULL

CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, dihydrochloride, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



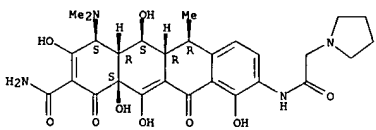
● 2 HCl

RN 161320-25-8 USPATFULL

CN 2-Naphthaceneacetamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[methylamino]acetyl]amino]-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5a.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

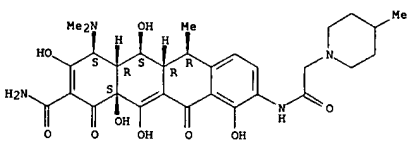
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-28-1 USPATFULL

CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-4-methyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

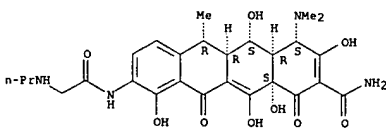
Absolute stereochemistry.



RN 161320-29-2 USPATFULL

CN 2-Naphthaceneacetamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[propylamino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5a.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

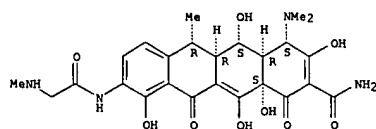


● 2 HCl

RN 161320-30-5 USPATFULL

CN 2-Naphthaceneacetamide, 9-[[[butylamino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5a.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)

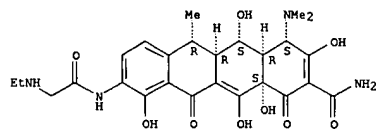


● 2 HCl

RN 161320-26-9 USPATFULL

CN 2-Naphthaceneacetamide, 4-(dimethylamino)-9-[[[ethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5a.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 HCl

RN 161320-27-0 USPATFULL

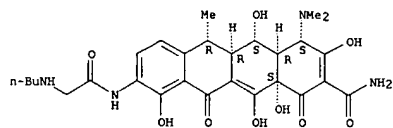
CN 1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)

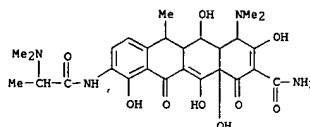
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-31-6 USPATFULL

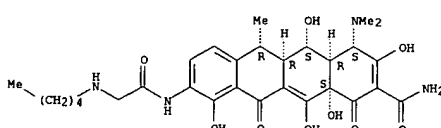
CN 2-Naphthaceneacetamide, 4-(dimethylamino)-9-[[[2-(dimethylamino)-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161320-32-7 USPATFULL

CN 2-Naphthaceneacetamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[pentylamino]acetyl]amino]-, monohydrochloride, [4S-(4.alpha.,4a.alpha.,5a.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



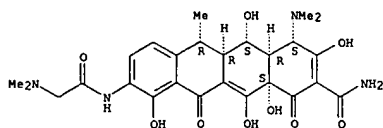
● HCl

RN 161320-33-8 USPATFULL

CN 2-Naphthaceneacetamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,12aS)-

L6 ANSWER 2 OF 4 USPATFULL (Continued)  
(9CI) (CA INDEX NAME)

**Absolute stereochemistry.**

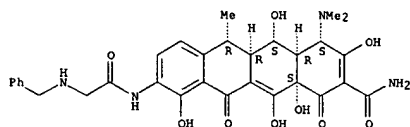


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RN      161320-34-9  USPATFAMLE
CN      2-(sophthacencarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-
      [[(phenylmethyl)amino]acetyl]amino] dihydrochloride,
      [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI)
      (CA [INDEX NAME])

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Absolute stereochemistry.

 $\bullet 2 \text{ HCl}$ 

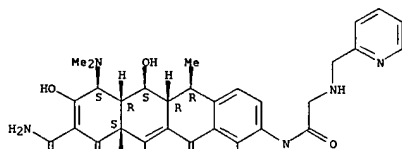
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RN      161320-35-0  USPATFULL
CN      2-Naphthacene-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-
        3,10,12,12a-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[2-
        (thienylmethyl)amino]acetyl]amino]-1,1-dichloride,
        [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI)
        (CA INDEX NAME)

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Absolute stereochemistry.

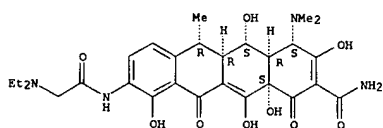
L6 ANSWER 2 OF 4 USPATFULL (Continued)



● 2 HCl

RN	161320-38-3	USPATFULL
CN	2-Naphthacenecarboxamide, 9-[[[(diethylamino)acetyl]amino]-4-(diethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9C1) (CA INDEX NAME)	

**Absolute stereochemistry.**

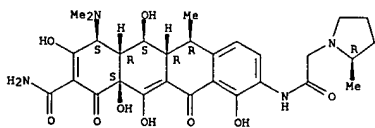


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RN      161320-39-4  USPATFULL
CN      1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-
        5,6a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-
        dioxo-2-naphthacycyl]-2-methyl-, [5R]-[2(R*),5.alpha.,5.alpha.,6.alpha.,
        6a.alpha.,7.alpha.,10a.alpha.]]- (SR) (CA INDEX NAME)

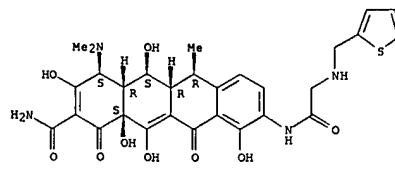
```

**Absolute stereochemistry.**



RN 161320-40-7 USPATFULL  
CN 2-Naphthacenicarboxamide, 9-[[[(cyclopropylmethyl)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-

L6 ANSWER 2 OF 4 USPATFULL (Continued)



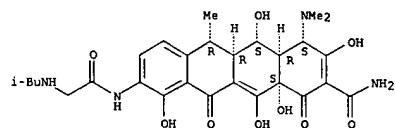
● 2 HCl

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RN      161320-36-1    USPATFAMLL
CN      2-Naphthalenecarboxamide, 4-((dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[2-methylpropyl]amino]acetyl]amino]-1,11-dioxo-, dihydrochloride, {4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)}- (9CI)
      {CA INDEX NAME}

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**Absolute stereochemistry.**

 $\bullet 2 \text{ HCl}$ 

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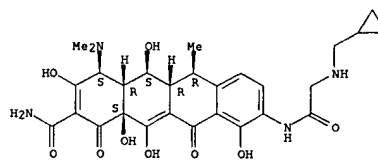
RN      161320-37-2  USPATFULL
CN      2-Naphthaceneaceticamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-oxo-5-methyl-1,11-dihydro-[[[(2-pyridinylmethyl)amino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI)
      (CA INDEX NAME)

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**Absolute stereochemistry.**

L6 ANSWER 2 OF 4 USPATFULL (Continued)  
pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-  
(4.alpha., 4a.alpha., 5.alpha., 5a.alpha., 6.alpha., 12a.alpha.)]- (9CI) (CA  
INDEX NAME)

**Absolute stereochemistry.**



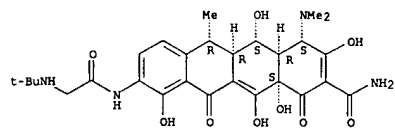
● 2 HCl

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RN      161320-41-8   USPATFULL
CN      2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[1,1-
        dimethylethyl]pentanoyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-
        3,5,10,12,12a-pentahydroxy-6-methyl-1,1-dioxo-, [4S-
        (4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]-
        (9CI) (CA
INDEX NAME

```

**Absolute stereochemistry.**



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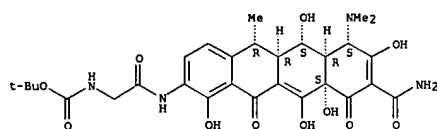
RN      161320-42-9  USP4TFULF
CN      Carbamic acid, [2-[[[9-(aminocarbonyl)-7-(dimethylamino)-
      5,5a,6,6a,7,10,10a,12-oxahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-
      dioxo-2-naphthacenyl]amino]-2-oxoethyl]-, 1,1-dimethyl ester,
      {5R-[5.alpha.,.5a.alpha.,.6.alpha.,.6a.alpha.,.7.alpha.,10a.alpha.]]- (9CI)
      (CA INDEX NAME)

```

Absolute stereochemistry.

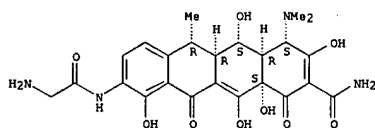


L6 ANSWER 2 OF 4 USPATFULL (Continued)



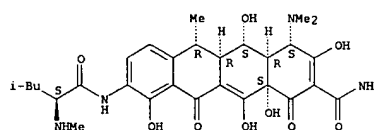
RN 161320-43-0 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-1-oxo-3-phenylpropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-44-1 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[(4-methyl-2-(methylamino)-1-oxopentyl)amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

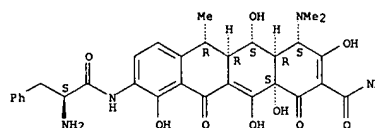
Absolute stereochemistry.



RN 161320-45-2 USPATFULL  
CN Pentanoic acid, 4-amino-5-[(9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacene)amino]-5-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

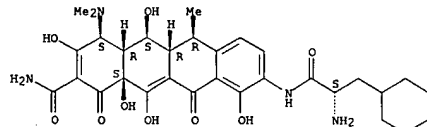
L6 ANSWER 2 OF 4 USPATFULL (Continued)

Absolute stereochemistry.



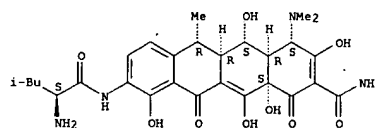
RN 161320-49-6 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-3-cyclohexyl-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-50-9 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-4-methyl-1-oxopentyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

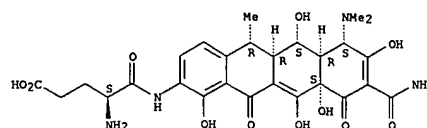


RN 161320-51-0 USPATFULL  
CN Pentanediamide, 2-amino-N1-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacene]amino]-5-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

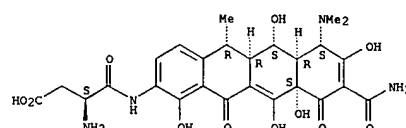
L6 ANSWER 2 OF 4 USPATFULL (Continued)

Absolute stereochemistry.



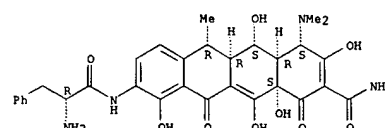
RN 161320-46-3 USPATFULL  
CN Butanoic acid, 3-amino-4-[(9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacene)amino]-4-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



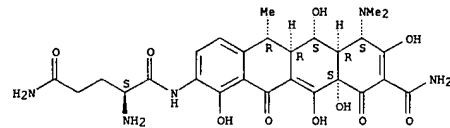
RN 161320-47-4 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-1-oxo-3-phenylpropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



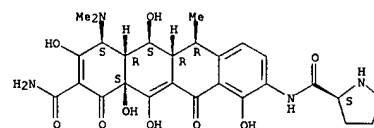
RN 161320-48-5 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-1-oxo-3-phenylpropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)



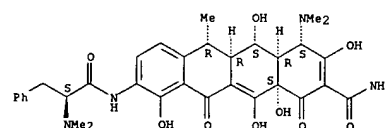
RN 161320-52-1 USPATFULL  
CN 2-Pyrrolidinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacene]amino]-5-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-53-2 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 4-(dimethylamino)-9-[(2-(dimethylamino)-1-oxo-3-phenylpropyl)amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

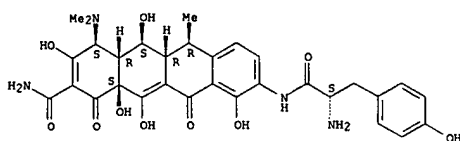
Absolute stereochemistry.



RN 161320-54-3 USPATFULL  
CN 2-Naphthacene-4-carboxamide, 9-[(2-amino-3-(4-hydroxyphenyl)-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

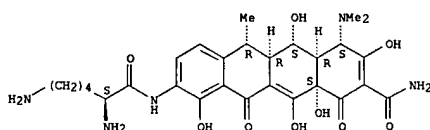
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-55-4 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2,6-diamino-1-oxohexyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

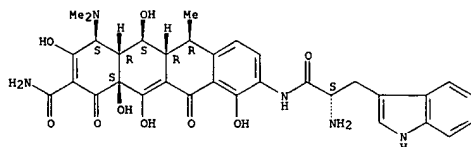
Absolute stereochemistry.



RN 161320-56-5 USPATFULL

CN 1H-Indole-3-propanamide, .alpha.-amino-N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-(2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

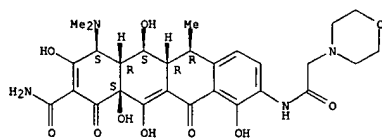
Absolute stereochemistry.



RN 161320-57-6 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[(dimethylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-

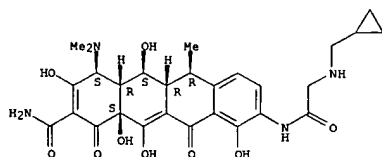
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-60-1 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[[[(cyclopropylmethyl)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-61-2 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[(dimethylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]-, sulfate (1:1) (salt) (9CI) (CA INDEX NAME)

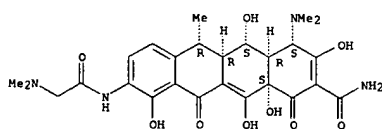
CM 1

CRN 161320-33-8

CMF C26 H32 N4 O9

CDES 1:4S2:4A,4AA,5A,5AA,6A,12AA

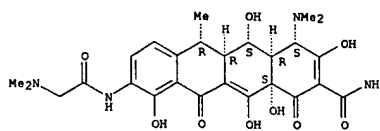
Absolute stereochemistry.



L6 ANSWER 2 OF 4 USPATFULL (Continued)

3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

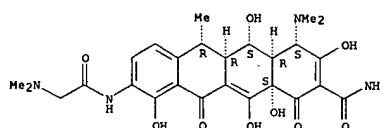


● HCl

RN 161320-58-7 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[(dimethylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 HCl

RN 161320-59-8 USPATFULL

CN 4-Morpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)

CM 2

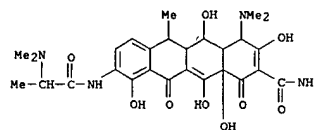
CRN 7664-93-9

CMF H2 O4 S



RN 161320-62-3 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-(dimethylamino)-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)

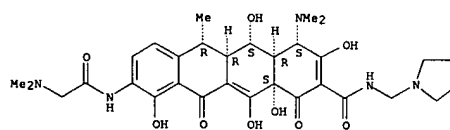


● HCl

RN 161320-63-4 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[(dimethylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-N-(1-pyrrolidinylmethyl)-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

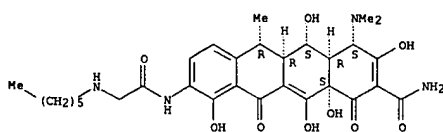


RN 161320-64-5 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[(hexylamino)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)

Absolute stereochemistry.

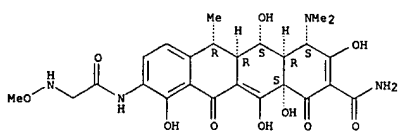


● 2 HCl

RN 161320-65-6 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-9-[[methoxyamino]acetyl]amino-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

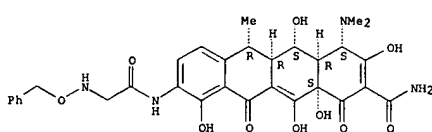
Absolute stereochemistry.



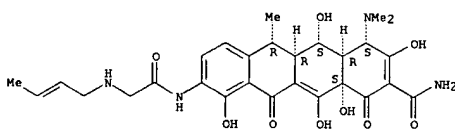
RN 161320-66-7 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[(phenylmethoxy)amino]acetyl]amino]-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



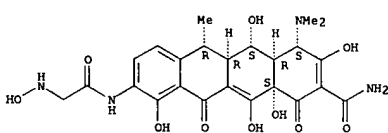
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-70-3 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-9-[[hydroxyamino]acetyl]amino-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

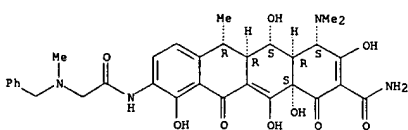
Absolute stereochemistry.



RN 161320-71-4 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[methyl(phenylmethyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-72-5 USPATFULL

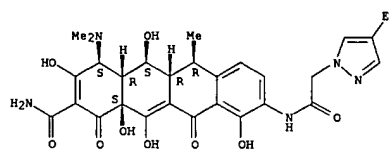
CN 2,5-Diazabicyclo[2.2.1]heptane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-5-methyl- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)

RN 161320-67-8 USPATFULL

CN 1H-Pyrazole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-4-ethyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

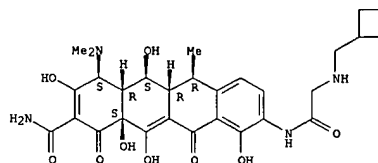
Absolute stereochemistry.



RN 161320-68-9 USPATFULL

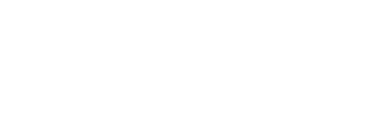
CN 2-Naphthacene-1-carboxamide, 9-[[[(cyclobutylmethyl)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

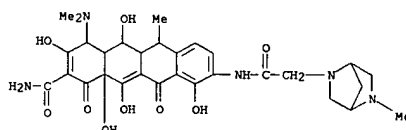


RN 161320-69-0 USPATFULL

CN 2-Naphthacene-1-carboxamide, 9-[[[(2-butenylamino)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

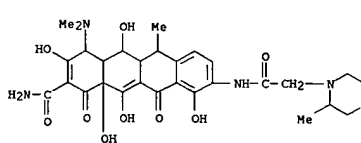
Absolute stereochemistry.  
Double bond geometry unknown.

L6 ANSWER 2 OF 4 USPATFULL (Continued)



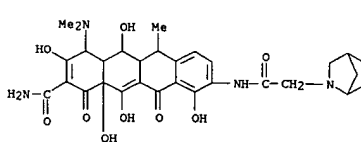
RN 161320-73-6 USPATFULL

CN 4-Morpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-3-methyl- (9CI) (CA INDEX NAME)



RN 161320-74-7 USPATFULL

CN 2-Azabicyclo[2.2.1]heptane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]- (9CI) (CA INDEX NAME)



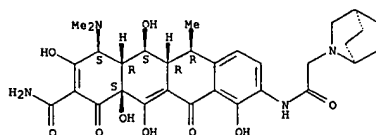
RN 161320-75-8 USPATFULL

CN 2-Azabicyclo[2.2.2]octane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

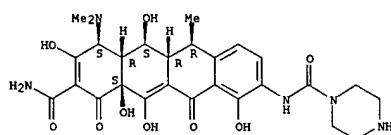


L6 ANSWER 2 OF 4 USPATFULL (Continued)



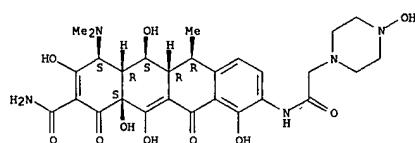
RN 161320-76-9 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-77-0 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-hydroxy-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

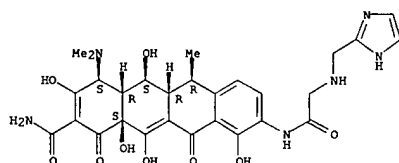
Absolute stereochemistry.



RN 161320-78-1 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-methyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

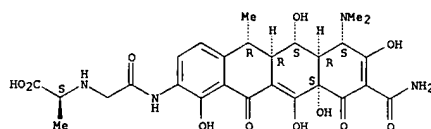
Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)

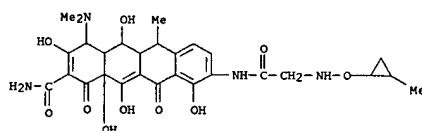


RN 161320-82-7 USPATFULL  
CN L-Alanine, N-[2-[[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-2-oxoethyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

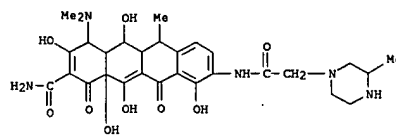


RN 161320-83-8 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[4-[(2-methyl-1-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

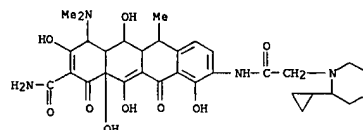


RN 161320-84-9 USPATFULL  
CN 2-Naphthacenecarboxamide, 9-[[[4-[(2-methyl-1-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)

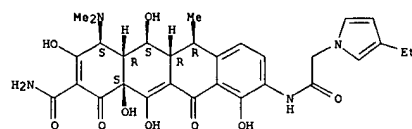


RN 161320-79-2 USPATFULL  
CN 4-Thiomorpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-cyclopropyl-, (9CI) (CA INDEX NAME)



RN 161320-80-5 USPATFULL  
CN 1H-Pyrrole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-ethyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

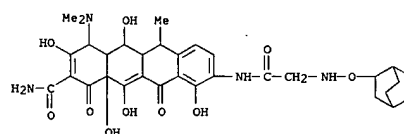
Absolute stereochemistry.



RN 161320-81-6 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[4-[(2-methyl-1-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

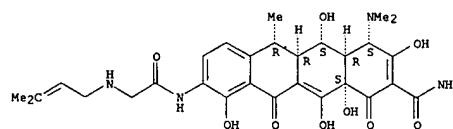
Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)



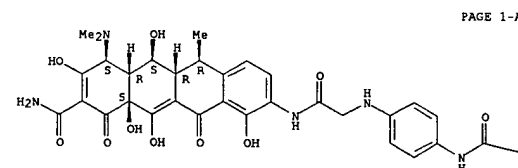
RN 161320-85-0 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[4-[(2-methyl-1-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-86-1 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[4-[(2-methyl-1-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-A

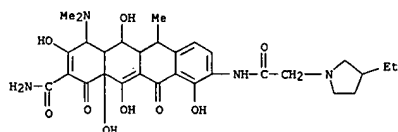
L6 ANSWER 2 OF 4 USPATFULL (Continued)

PAGE 1-B

Pr-i

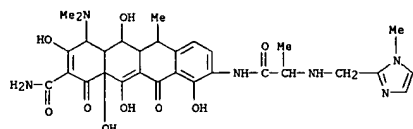
RN 161320-87-2 USPATFULL

CN 1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-ethyl- (9CI) (CA INDEX NAME)



RN 161320-88-3 USPATFULL

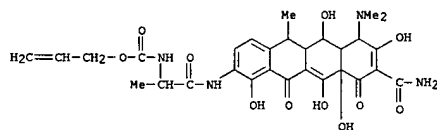
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[(1-methyl-1H-imidazol-2-yl)methyl]amino]-1-oxopropyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161320-89-4 USPATFULL

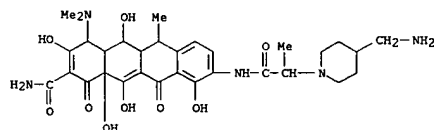
CN 2-Naphthacenecarboxamide, 9-[[2-(dicyclopropylamino)-1-oxopropyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)



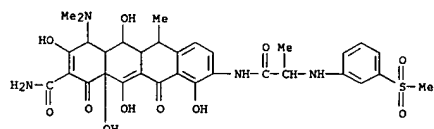
RN 161320-93-0 USPATFULL

CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-(aminomethyl)-.alpha.-methyl- (9CI) (CA INDEX NAME)



RN 161320-94-1 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[(3-methylsulfonyl)phenyl]amino]-1-oxopropyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)

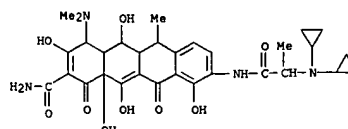


RN 161320-95-2 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-(dimethylamino)-2-methyl-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

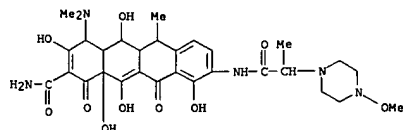
Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)



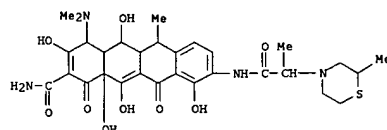
RN 161320-90-7 USPATFULL

CN 1-Piperazineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-methoxy-.alpha.-methyl- (9CI) (CA INDEX NAME)



RN 161320-91-8 USPATFULL

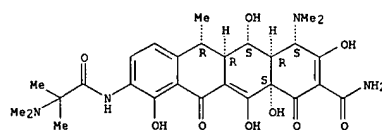
CN 4-Thiomorpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.,2-dimethyl- (9CI) (CA INDEX NAME)



RN 161320-92-9 USPATFULL

CN Carbamic acid, [2-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-1-methyl-2-oxoethyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

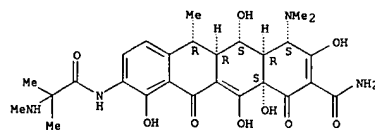
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-96-3 USPATFULL

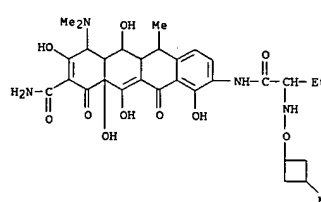
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-methyl-2-(methylamino)-1-oxopropyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-97-4 USPATFULL

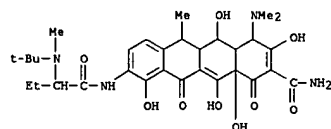
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[(3-methylcyclobutyl)oxy]amino]-1-oxobutyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)



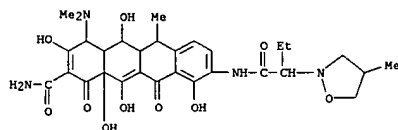
RN 161320-98-5 USPATFULL

CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-[(1,1-dimethylethyl)methylamino]-1-oxobutyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

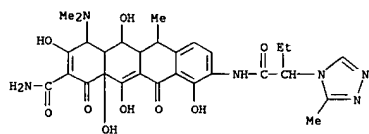
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161320-99-6 USPATFULL  
CN 2-Isoxazolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-ethyl-4-methyl- (9CI) (CA INDEX NAME)

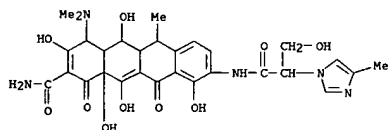


RN 161321-00-2 USPATFULL  
CN 4H-1,2,4-Triazole-4-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-ethyl-3-methyl- (9CI) (CA INDEX NAME)

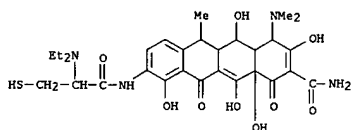


RN 161321-01-3 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-[(2-(dimethylamino)-3,3-dimethyl-1-oxobutyl)amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-dioxo-2-naphthacenyl]-.alpha.-ethyl-3-methyl- (9CI) (CA INDEX NAME)

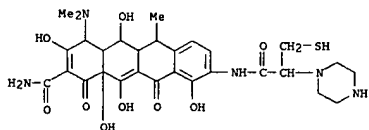
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161321-05-7 USPATFULL  
CN 2-Naphthacenecarboxamide, 9-[(2-(diethylamino)-3-mercapto-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

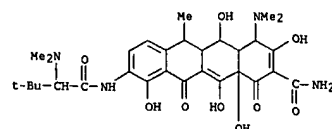


RN 161321-06-8 USPATFULL  
CN 1-Piperazineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-mercaptomethyl- (9CI) (CA INDEX NAME)

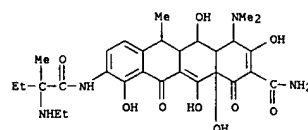


RN 161321-07-9 USPATFULL  
CN Butanoic acid, 4-[(9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl)amino]-3-(hexylamino)-4-oxo- (9CI) (CA INDEX NAME)

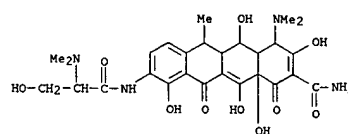
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161321-02-4 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-(ethylamino)-2-methyl-1-oxobutyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

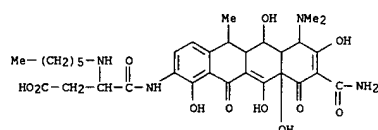


RN 161321-03-5 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-(dimethylamino)-3-hydroxy-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

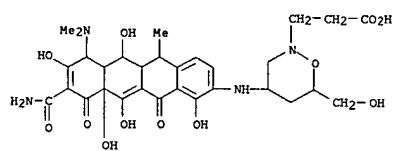


RN 161321-04-6 USPATFULL  
CN 1H-Imidazole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-ethyl-3-methyl- (9CI) (CA INDEX NAME)

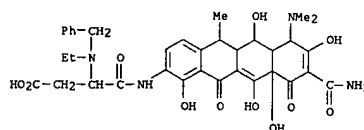
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161321-08-0 USPATFULL  
CN 2H-1,2-Oxazine-2-propanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]tetrahydro-6-(hydroxymethyl)- (9CI) (CA INDEX NAME)

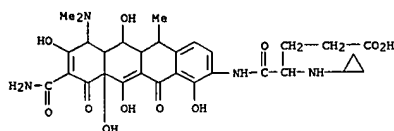


RN 161321-09-1 USPATFULL  
CN Butanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-3-[[ethyl(phenylmethyl)amino]-4-oxo- (9CI) (CA INDEX NAME)

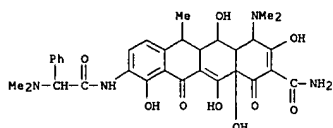


RN 161321-10-4 USPATFULL  
CN Pentanoic acid, 5-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-4-(cyclopropylamino)-5-oxo- (9CI) (CA INDEX NAME)

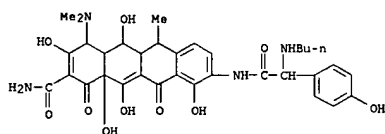
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161321-11-5 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[(dimethylamino)phenyl]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

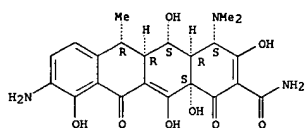


RN 161321-12-6 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(butylamino) (4-hydroxyphenyl) acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



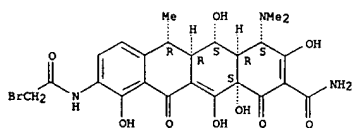
RN 161321-13-7 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[(dimethylamino) (4-methoxyphenyl) acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)



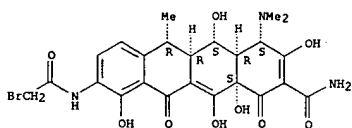
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 161321-28-4P 161321-29-5P 161321-30-6P  
 161321-31-7P 161321-32-0P 161321-33-1P  
 (prepn. of 9-[(N-substituted-glycyl)amido]-6-methyl(ene)-5-hydroxy-6-deoxytetracyclines as antibiotics)  
 RN 161321-16-0 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(bromoacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,6R,12aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



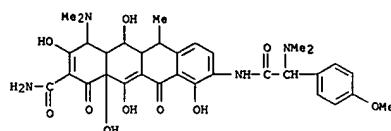
RN 161321-17-1 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(bromoacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,6R,12aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

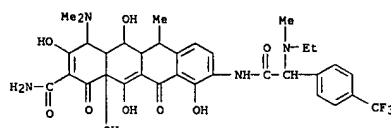


● HBr

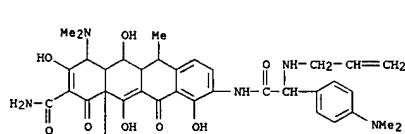
L6 ANSWER 2 OF 4 USPATFULL (Continued)



RN 161321-14-8 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[(ethylmethylamino) (4-(trifluoromethyl)phenyl)acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161321-15-9 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[(4-(dimethylamino)phenyl) (2-propenylamino) acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



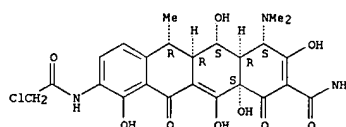
IT 161321-34-2  
 (prepn. of 9-[(N-substituted-glycyl)amido]-6-methyl(ene)-5-hydroxy-6-deoxytetracyclines as antibiotics)  
 RN 161321-34-2 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-amino-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,6R,12aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)

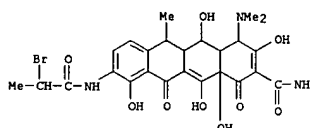
RN 161321-18-2 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(chloroacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride, (4S,4aR,5S,5aR,6R,12aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 161321-19-3 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(2-bromo-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

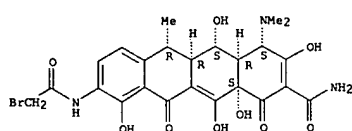
RN 161321-20-6 USPATFULL  
 CN 2-Naphthacene-1-carboxamide, 9-[[[(bromoacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,6R,12aS)- (9CI) (CA INDEX NAME)

CN 1

CRN 161321-16-0  
 CMF C24 H26 Br N3 O9  
 CDES 1:4S2:4A,4AA,5A,5AA,6A,12AA

Absolute stereochemistry.

L6 ANSWER 2 OF 4 USPATFULL (Continued)



CM 2

CRN 7664-93-9

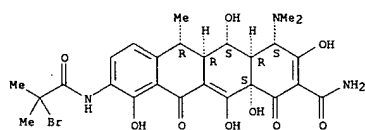
CMF H2 O4 S



RN 161321-21-7 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-2-methyl-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

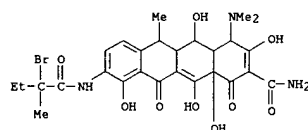


● HBr

RN 161321-22-8 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-1-oxobutyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

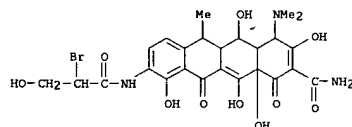
L6 ANSWER 2 OF 4 USPATFULL (Continued)



● HBr

RN 161321-25-1 USPATFULL

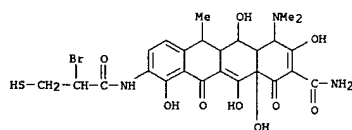
CN 2-Naphthacenecarboxamide, 9-[(2-bromo-3-hydroxy-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

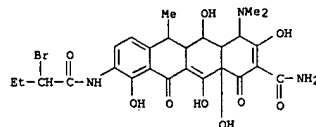
RN 161321-26-2 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-3-mercapto-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

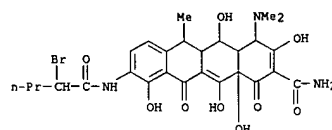
L6 ANSWER 2 OF 4 USPATFULL (Continued)



● HBr

RN 161321-23-9 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-1-oxopentyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

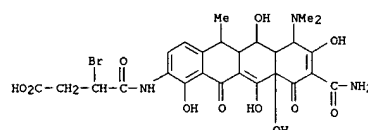
RN 161321-24-0 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-2-methyl-1-oxobutyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)

RN 161321-27-3 USPATFULL

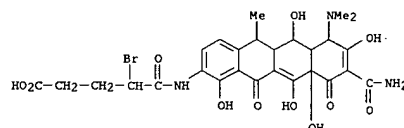
CN Butanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-3-bromo-4-oxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 161321-28-4 USPATFULL

CN Pentanoic acid, 5-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-4-bromo-5-oxo-, monohydrobromide (9CI) (CA INDEX NAME)



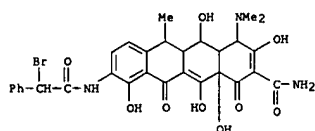
● HBr

RN 161321-29-5 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(bromophenylacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

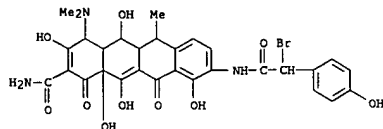


L6 ANSWER 2 OF 4 USPATFULL (Continued)



● HBr

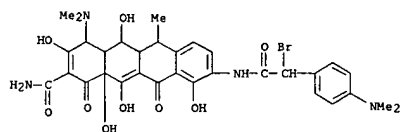
RN 161321-30-8 USPATFULL  
 CN 2-Naphthacenecarboxamide, 9-[(bromo(4-hydroxyphenyl)acetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

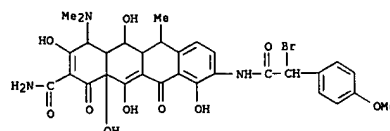
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 CN 2-Naphthacenecarboxamide, 9-[(bromo(4-methoxyphenyl)acetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 2 OF 4 USPATFULL (Continued)



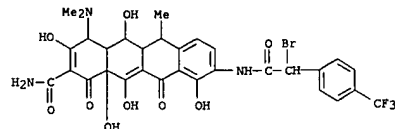
● HBr

L6 ANSWER 2 OF 4 USPATFULL (Continued)



● HBr

RN 161321-32-0 USPATFULL  
 CN 2-Naphthacenecarboxamide, 9-[(bromo[4-(trifluoromethyl)phenyl]acetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 161321-33-1 USPATFULL  
 CN 2-Naphthacenecarboxamide, 9-[(bromo[4-(dimethylamino)phenyl]acetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL

94:106775 USPATFULL  
 ACCESSION NUMBER: 94:106775  
 TITLE: 9-[(substituted glyceryl)amido]-6-(substituted)-5-hydroxy-6-deoxytetracyclines  
 INVENTOR(S): Lee, Ving J., Monsey, NY, United States  
 Buckwalter, Brian L., Yardley, PA, United States  
 Barden, Timothy C., Holland, PA, United States  
 PATENT ASSIGNEE(S): American Cyanamid Company, Wayne, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5371076		19941206
APPLICATION INFO.:	US 1993-42302		19930402 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Gerstl, Robert		
LEGAL REPRESENTATIVE:	Szatkowski, Thomas S.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2214		

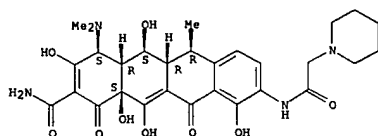
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides compounds of the formula: ##STR1## wherein R, R.sub.1, R.sub.2 and W are defined in the specification. These compounds are useful as antibiotic agents.

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 (prepn. of 9-[(N-substituted-glyceryl)amido]-6-methyl(ene)-5-hydroxy-6-deoxytetracyclines as antibiotics)  
 RN 161320-23-6 USPATFULL  
 CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-

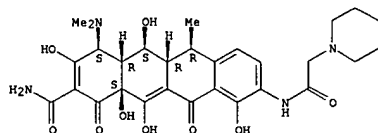
L6 ANSWER 3 OF 4 USPATFULL (Continued)  
 dioxo-2-naphthacetyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-24-7 USPATFULL  
 CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, dihydrochloride, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

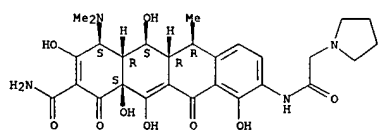


● 2 HCl

RN 161320-25-8 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[ethylamino]acetyl]amino]-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

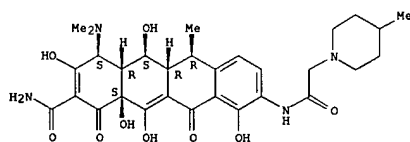
Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



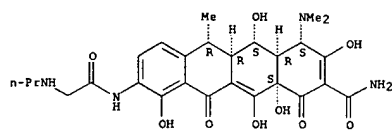
RN 161320-28-1 USPATFULL  
 CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, dihydrochloride, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-29-2 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[propylamino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

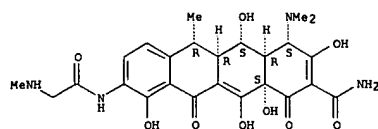
Absolute stereochemistry.



● 2 HCl

RN 161320-30-5 USPATFULL  
 CN 2-Naphthacenecarboxamide, 9-[[[butylamino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

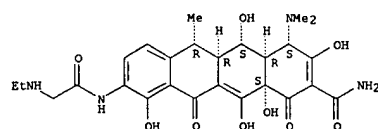
L6 ANSWER 3 OF 4 USPATFULL (Continued)



● 2 HCl

RN 161320-26-9 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[ethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



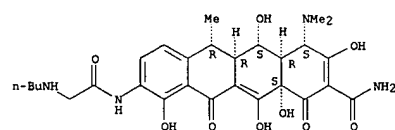
● 2 HCl

RN 161320-27-0 USPATFULL  
 CN 1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacetyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

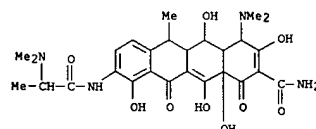
Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

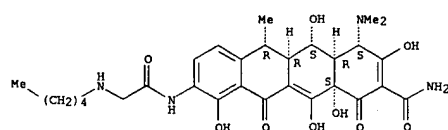


RN 161320-31-6 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[2-(dimethylamino)-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161320-32-7 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[pentylamino]acetyl]amino]-, monohydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

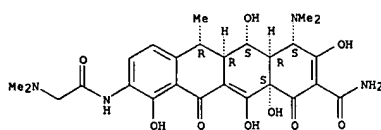


● HCl

RN 161320-33-8 USPATFULL  
 CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4aR,5S,5aR,6R,12aS)]-

L6 ANSWER 3 OF 4 USPATFULL (Continued)  
(9CI) (CA INDEX NAME)

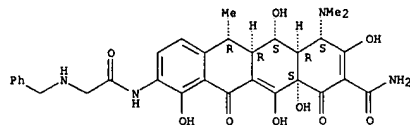
Absolute stereochemistry.



RN 161320-34-9 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(2-phenylmethyl)amino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



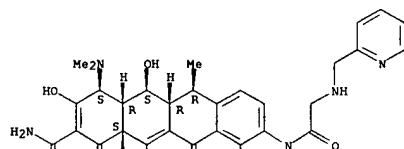
● 2 HCl

RN 161320-35-0 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(2-thienylmethyl)amino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)

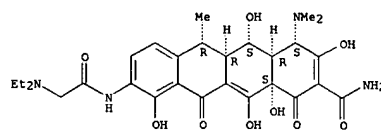


● 2 HCl

RN 161320-38-3 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(2-diethylamino)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

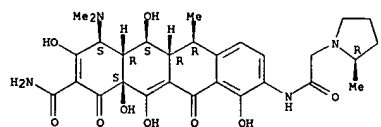
Absolute stereochemistry.



RN 161320-39-4 USPATFULL

CN 1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-2-methyl-, [5R-[2(R\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

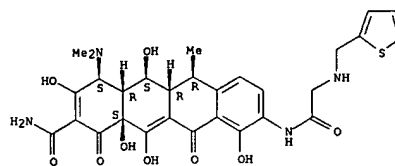
Absolute stereochemistry.



RN 161320-40-7 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(2-cyclopropylmethyl)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

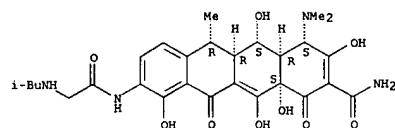


● 2 HCl

RN 161320-36-1 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-9-[[[(2-methylpropyl)amino]acetyl]amino]-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 HCl

RN 161320-37-2 USPATFULL

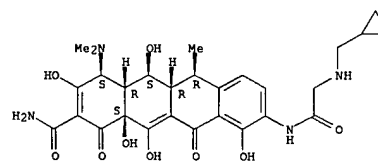
CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(2-pyridylmethyl)amino]acetyl]amino]-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)

pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

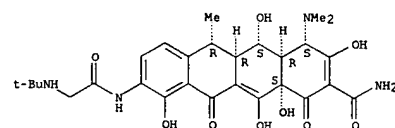


● 2 HCl

RN 161320-41-8 USPATFULL

CN 2-Naphthacene-1,4,5,6,11,12a-octahydro-3,5,10,12-tetrahydroxy-6-methyl-1,11-dioxo-9-[[[(1,1-dimethylethyl)amino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

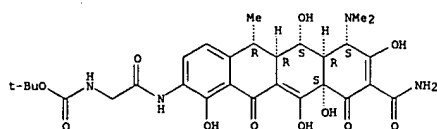


RN 161320-42-9 USPATFULL

CN Carbamic acid, [2-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-2-oxoethyl]-, 1,1-dimethylethyl ester, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

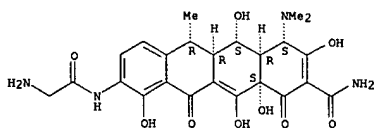
Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



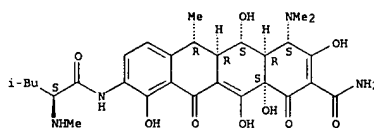
RN 161320-43-0 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-3-cyclohexyl-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-44-1 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

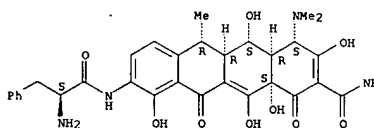
Absolute stereochemistry.



RN 161320-45-2 USPATFULL  
CN Pentanoic acid, 4-amino-5-[(9-[(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino)-5-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

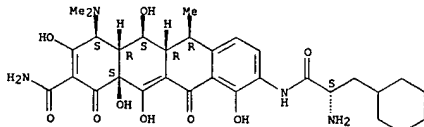
L6 ANSWER 3 OF 4 USPATFULL (Continued)

Absolute stereochemistry.



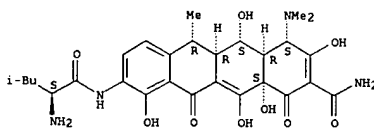
RN 161320-49-6 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-3-cyclohexyl-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



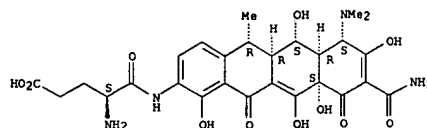
RN 161320-50-9 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-4-methyl-1-oxopentyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



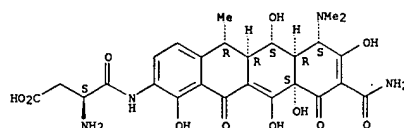
RN 161320-51-0 USPATFULL  
CN Pentanediamide, 2-amino-N1-[9-[(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)  
Absolute stereochemistry.

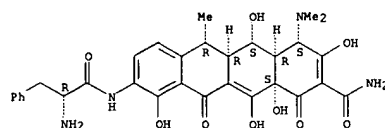
RN 161320-46-3 USPATFULL  
CN Butanoic acid, 3-amino-4-[(9-[(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino)-4-oxo-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



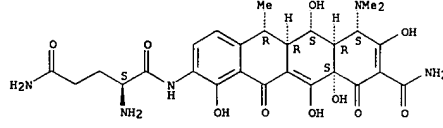
RN 161320-47-4 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-1-oxo-3-phenylpropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



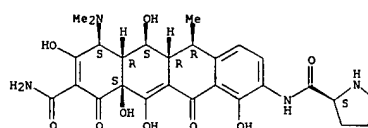
RN 161320-48-5 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-1-oxo-3-phenylpropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)



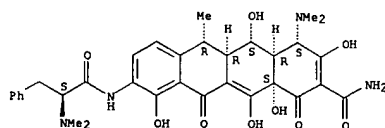
RN 161320-52-1 USPATFULL  
CN 2-Pyrrolidinecarboxamide, N-[9-[(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-53-2 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[(2-(dimethylamino)-1-oxo-3-phenylpropyl)amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

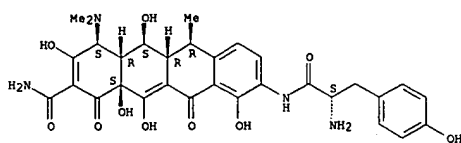
Absolute stereochemistry.



RN 161320-54-3 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-amino-3-(4-hydroxyphenyl)-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

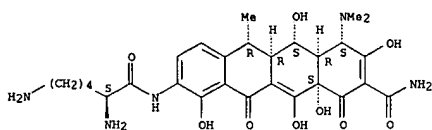
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161320-55-4 USPATFULL

CN 2-Naphthacene-1-carboxamide, 9-[(2,6-diamino-1-oxohexyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,9(R\*),12a.alpha.)]- (9CI) (CA INDEX NAME)

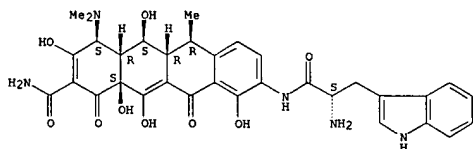
Absolute stereochemistry.



RN 161320-56-5 USPATFULL

CN 1H-Indole-3-propanamide, .alpha.-amino-N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-[2(S\*),5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.]]- (9CI) (CA INDEX NAME)

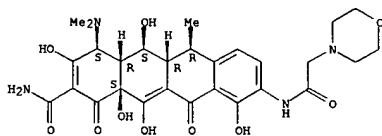
Absolute stereochemistry.



RN 161320-57-6 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-

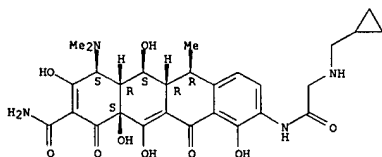
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161320-60-1 USPATFULL

CN 2-Naphthacene-1-carboxamide, 9-[[[cyclopropylmethyl]amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-61-2 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]-, sulfate (1:1) (salt) (9CI) (CA INDEX NAME)

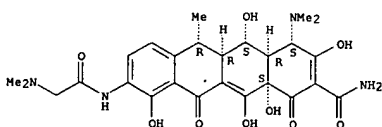
CH 1

CRN 161320-33-8

CMF C26 H32 N4 O9

CDES 1:4S2:4A,4AA,5A,5AA,6A,12AA

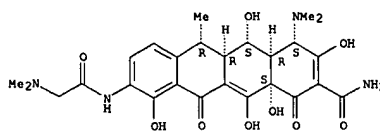
Absolute stereochemistry.



L6 ANSWER 3 OF 4 USPATFULL (Continued)

3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

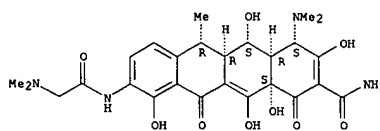


● HCl

RN 161320-58-7 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 HCl

RN 161320-59-8 USPATFULL

CN 4-Morpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)

CH 2

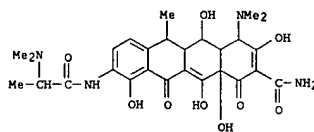
CRN 7664-93-9

CMF H2 O4 S



RN 161320-62-3 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[2-(dimethylamino)-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)

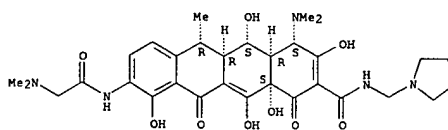


● HCl

RN 161320-63-4 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[dimethylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-N-(1-pyrrolidinylmethyl)-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

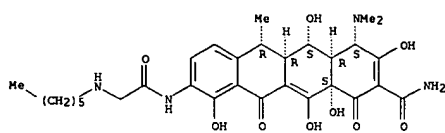


RN 161320-64-5 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-(dimethylamino)-9-[[[hexylamino]acetyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12-pentahydroxy-6-methyl-1,11-dioxo-, dihydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

Absolute stereochemistry.

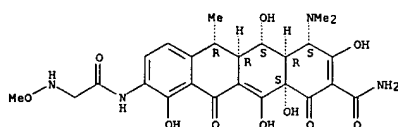


● 2 HCl

RN 161320-65-6 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-9-[[methoxyamino]acetyl]amino)-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

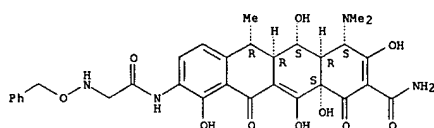
Absolute stereochemistry.



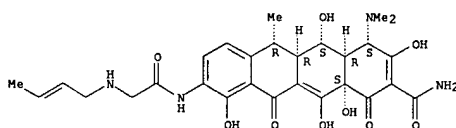
RN 161320-66-7 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-9-[[[(phenylmethoxy)amino]acetyl]amino]-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



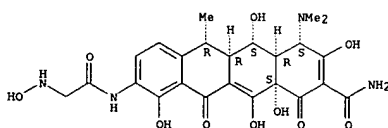
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161320-70-3 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-9-[[[(hydroxyamino)acetyl]amino]-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

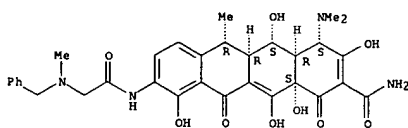
Absolute stereochemistry.



RN 161320-71-4 USPATFULL

CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[methyl(phenylmethyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-72-5 USPATFULL

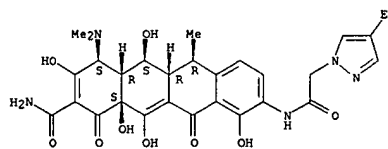
CN 2,5-Diazabicyclo[2.2.1]heptane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-5-methyl- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

RN 161320-67-8 USPATFULL

CN 1H-Pyrazole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-4-ethyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

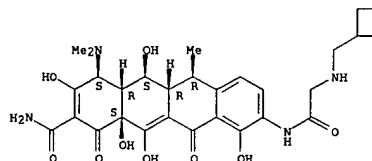
Absolute stereochemistry.



RN 161320-68-9 USPATFULL

CN 2-Naphthacene-1-carboxamide, 9-[[[(cyclobutylmethyl)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

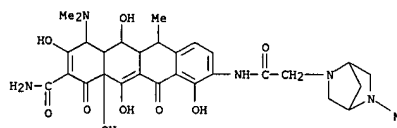


RN 161320-69-0 USPATFULL

CN 2-Naphthacene-1-carboxamide, 9-[[[(2-butenylamino)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

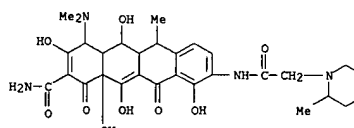
Absolute stereochemistry.  
Double bond geometry unknown.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



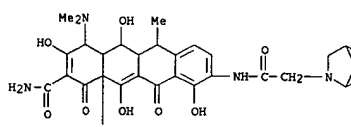
RN 161320-73-6 USPATFULL

CN 4-Morpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-3-methyl- (9CI) (CA INDEX NAME)



RN 161320-74-7 USPATFULL

CN 2-Azabicyclo[2.2.1]heptane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]- (9CI) (CA INDEX NAME)

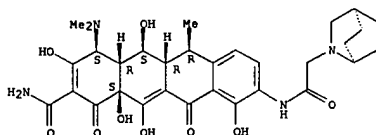


RN 161320-75-8 USPATFULL

CN 2-Azabicyclo[2.2.2]octane-2-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthaceny]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

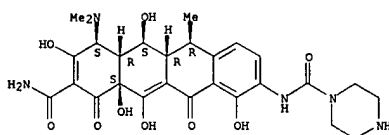
Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



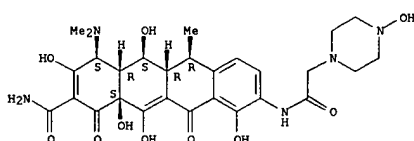
RN 161320-76-9 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



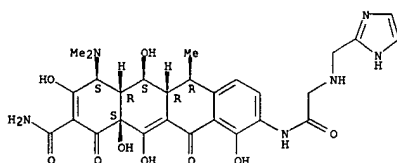
RN 161320-77-0 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-hydroxy-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



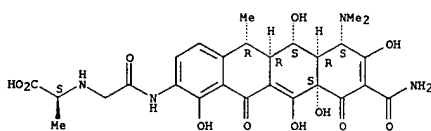
RN 161320-78-1 USPATFULL  
CN 1-Piperazinecarboxamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-methyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

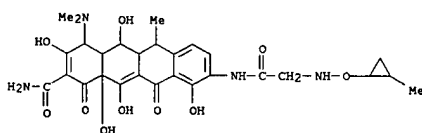


RN 161320-82-7 USPATFULL  
CN L-Alanine, N-[2-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-2-oxoethyl]-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

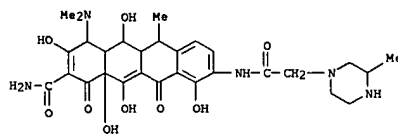


RN 161320-83-8 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[(2-methylcyclopropyl)oxy]amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

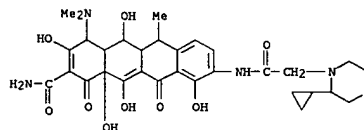


RN 161320-84-9 USPATFULL  
CN 2-Naphthacenecarboxamide, 9-[[[(bicyclo[2.2.2]oct-2-yloxy)amino]acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

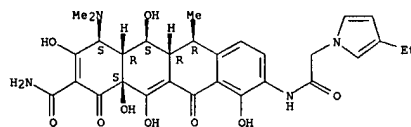


RN 161320-79-2 USPATFULL  
CN 4-Thiomorpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-cyclopropyl-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)



RN 161320-80-5 USPATFULL  
CN 1H-Pyrrole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-ethyl-, [5R-(5.alpha.,5a.alpha.,6.alpha.,6a.alpha.,7.alpha.,10a.alpha.)]- (9CI) (CA INDEX NAME)

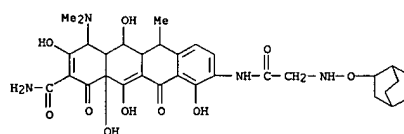
Absolute stereochemistry.



RN 161320-81-6 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-9-[[[(1H-imidazol-2-ylmethyl)amino]acetyl]amino]-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

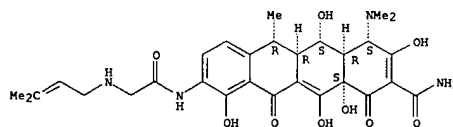
Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



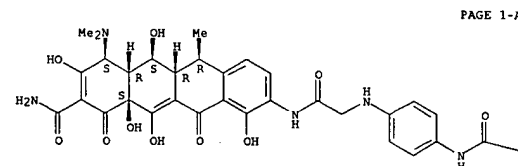
RN 161320-85-0 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[(3-methyl-2-butenyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161320-86-1 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[[(4-oxopropyl)amino]acetyl]amino]-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



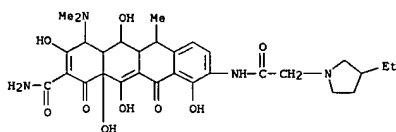
PAGE 1-A

L6 ANSWER 3 OF 4 USPATFULL (Continued)

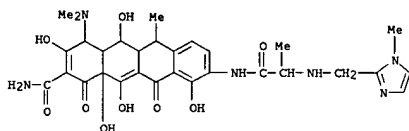
PAGE 1-B

Pr-i

- RN 161320-87-2 USPATFULL  
CN 1-Pyrrolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-3-ethyl- (9CI) (CA INDEX NAME)

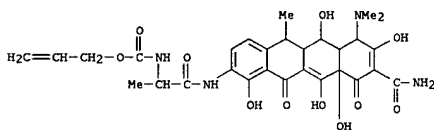


- RN 161320-88-3 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[[[1-methyl-1H-imidazol-2-yl)methyl]amino]-1-oxopropyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)

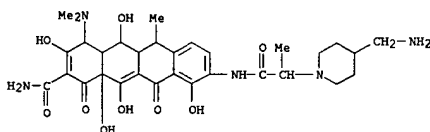


- RN 161320-89-4 USPATFULL  
CN 2-Naphthacenecarboxamide, 9-[[2-(dicyclopropylamino)-1-oxopropyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

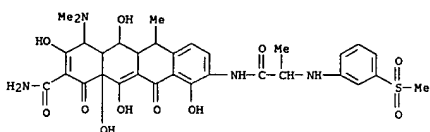
L6 ANSWER 3 OF 4 USPATFULL (Continued)



- RN 161320-93-0 USPATFULL  
CN 1-Piperidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-(aminomethyl)-.alpha.-methyl- (9CI) (CA INDEX NAME)



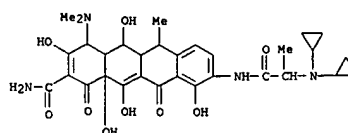
- RN 161320-94-1 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[[[3-(methylsulfonyl)phenyl]amino]-1-oxopropyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)



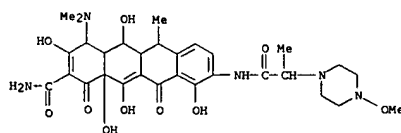
- RN 161320-95-2 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-(dimethylamino)-2-methyl-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

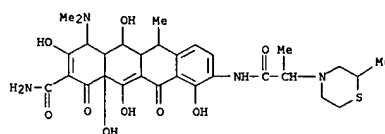
L6 ANSWER 3 OF 4 USPATFULL (Continued)



- RN 161320-90-7 USPATFULL  
CN 1-Piperazineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-4-methoxy-.alpha.-methyl- (9CI) (CA INDEX NAME)

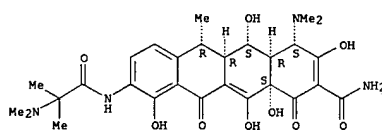


- RN 161320-91-8 USPATFULL  
CN 4-Thiomorpholineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.,2-dimethyl- (9CI) (CA INDEX NAME)



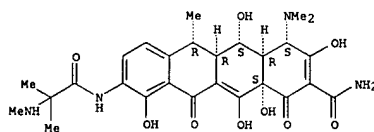
- RN 161320-92-9 USPATFULL  
CN Carbamic acid, [2-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-1-methyl-2-oxoethyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

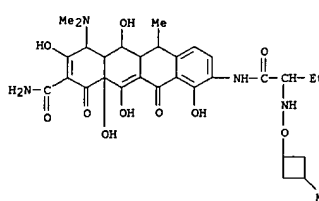


- RN 161320-96-3 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-methyl-2-(methylamino)-1-oxopropyl]amino]-1,11-dioxo- [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



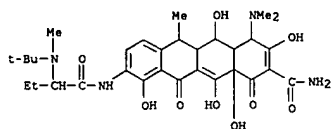
- RN 161320-97-4 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-9-[[2-[[[3-methylcyclobutyl]oxy]amino]-1-oxobutyl]amino]-1,11-dioxo- (9CI) (CA INDEX NAME)



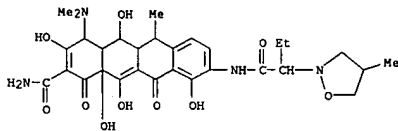
- RN 161320-98-5 USPATFULL  
CN 2-Naphthacenecarboxamide, 4-(dimethylamino)-9-[[2-[[[1,1-dimethylethyl)methylamino]-1-oxobutyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



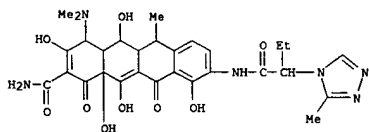
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161320-99-6 USPATFULL  
CN 2-isoxazolidineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-ethyl-4-methyl- (9CI) (CA INDEX NAME)

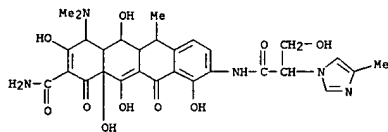


RN 161321-00-2 USPATFULL  
CN 4H-1,2,4-Triazole-4-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.-ethyl-3-methyl- (9CI) (CA INDEX NAME)

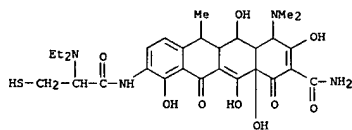


RN 161321-01-3 USPATFULL  
CN 2-Naphthacene-1-oxopropyl derivative, N-[9-(aminocarbonyl)-7-(dimethylamino)-3,3-dimethyl-1-oxobutyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

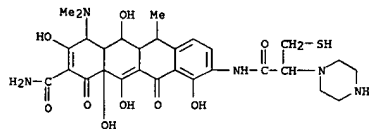
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161321-05-7 USPATFULL  
CN 2-Naphthacene-1-oxopropyl derivative, 9-[[2-(diethylamino)-3-mercapto-1-oxopropyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

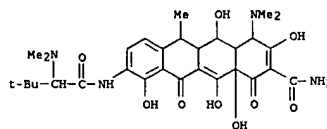


RN 161321-06-8 USPATFULL  
CN 1-Piperazineacetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.- (mercaptomethyl)- (9CI) (CA INDEX NAME)

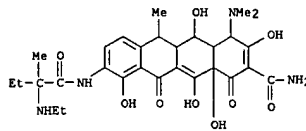


RN 161321-07-9 USPATFULL  
CN Butanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-3-(hexylamino)-4-oxo- (9CI) (CA INDEX NAME)

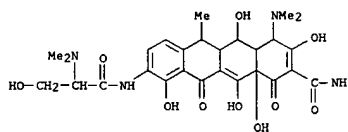
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161321-02-4 USPATFULL  
CN 2-Naphthacene-1-oxopropyl derivative, 4-(dimethylamino)-9-[[2-(ethylamino)-2-methyl-1-oxobutyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

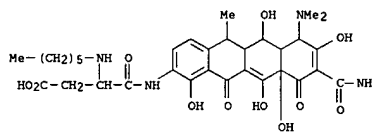


RN 161321-03-5 USPATFULL  
CN 2-Naphthacene-1-oxopropyl derivative, 4-(dimethylamino)-9-[[2-(dimethylamino)-3-hydroxy-1-oxopropyl]amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

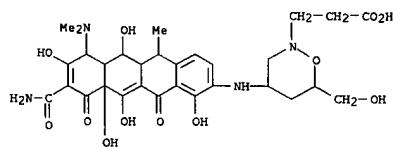


RN 161321-04-6 USPATFULL  
CN 1H-Imidazole-1-acetamide, N-[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]-.alpha.- (hydroxymethyl)-4-methyl- (9CI) (CA INDEX NAME)

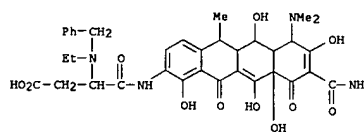
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161321-08-0 USPATFULL  
CN 2H-1,2-Oxazine-2-propanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]tetrahydro-6-(hydroxymethyl)- (9CI) (CA INDEX NAME)

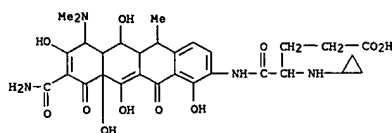


RN 161321-09-1 USPATFULL  
CN Butanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-3-(ethyl(phenylmethyl)amino)-4-oxo- (9CI) (CA INDEX NAME)

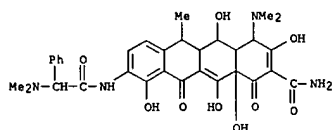


RN 161321-10-4 USPATFULL  
CN Pentanoic acid, 5-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-4-(cyclopropylamino)-5-oxo- (9CI) (CA INDEX NAME)

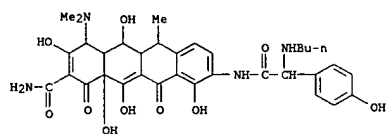
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161321-11-5 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

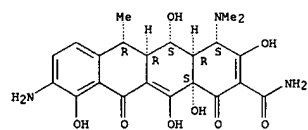


RN 161321-12-6 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[[4-(dimethylamino)phenyl]acetyl amino]-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161321-13-7 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)

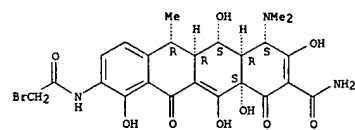
L6 ANSWER 3 OF 4 USPATFULL (Continued)



IT 161321-16-0P 161321-17-1P 161321-18-2P  
161321-19-3P 161321-20-6P 161321-21-7P  
161321-22-8P 161321-23-9P 161321-24-0P  
161321-25-1P 161321-26-2P 161321-27-3P  
161321-28-4P 161321-29-5P 161321-30-6P  
161321-31-7P 161321-32-8P 161321-33-1P  
(prepn. of 9-[(N-substituted-glycyl)amido]-6-methyl(ene)-5-hydroxy-6-deoxytetracyclines as antibiotics)

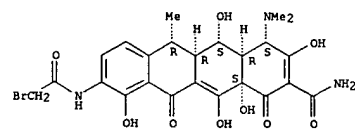
RN 161321-16-0 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-((bromoacetyl) amino)-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



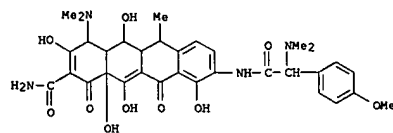
RN 161321-17-1 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-((bromoacetyl) amino)-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

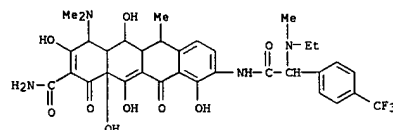


● HBr

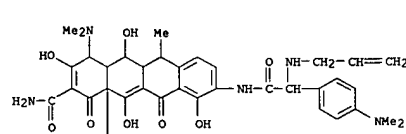
L6 ANSWER 3 OF 4 USPATFULL (Continued)



RN 161321-14-8 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



RN 161321-15-9 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



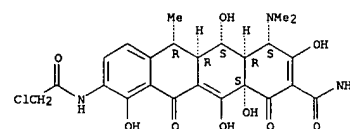
IT 161321-34-2  
(prepn. of 9-[(N-substituted-glycyl)amido]-6-methyl(ene)-5-hydroxy-6-deoxytetracyclines as antibiotics)  
RN 161321-34-2 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-amino-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)

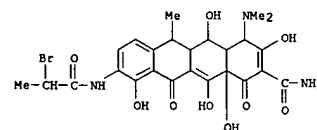
RN 161321-18-2 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(chloroacetyl) amino]-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 161321-19-3 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(2-bromo-1-oxopropyl) amino]-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

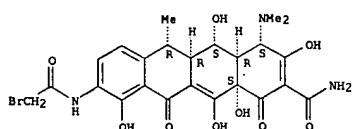
RN 161321-20-6 USPATFULL  
CN 2-Naphthacene-1-carboxamide, 9-[(bromoacetyl) amino]-4-((dimethylamino)phenyl)acetyl amino]-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, [4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.)]- sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 161321-16-0  
CMF C24 H26 Br N3 O9  
CDES 1:452:4A,4AA,5A,5AA,6A,12AA

Absolute stereochemistry.

L6 ANSWER 3 OF 4 USPATFULL (Continued)



CH 2

RN 7664-93-9

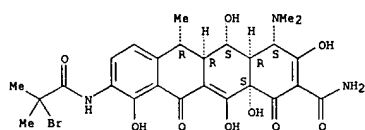
CNF H2 O4 S



RN 161321-21-7 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-2-methyl-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide, (4S-(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.alpha.,12a.alpha.))- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

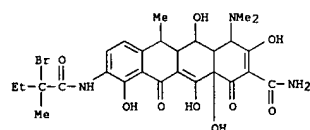


● HBr

RN 161321-22-8 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-1-oxobutyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

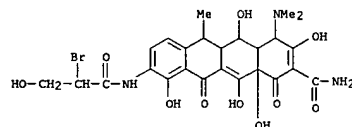
L6 ANSWER 3 OF 4 USPATFULL (Continued)



● HBr

RN 161321-25-1 USPATFULL

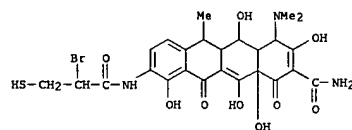
CN 2-Naphthacenecarboxamide, 9-[(2-bromo-3-hydroxy-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

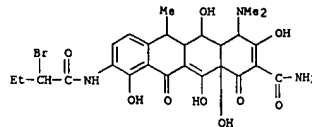
RN 161321-26-2 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-3-mercapto-1-oxopropyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

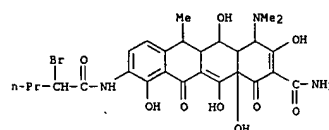
L6 ANSWER 3 OF 4 USPATFULL (Continued)



● HBr

RN 161321-23-9 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-1-oxopentyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

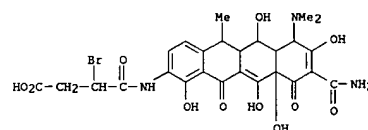
RN 161321-24-0 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(2-bromo-2-methyl-1-oxobutyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)

RN 161321-27-3 USPATFULL

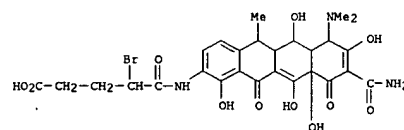
CN Butanoic acid, 4-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-3-bromo-4-oxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 161321-28-4 USPATFULL

CN Pentanoic acid, 5-[[9-(aminocarbonyl)-7-(dimethylamino)-5,5a,6,6a,7,10,10a,12-octahydro-1,6,8,10a,11-pentahydroxy-5-methyl-10,12-dioxo-2-naphthacenyl]amino]-4-bromo-5-oxo-, monohydrobromide (9CI) (CA INDEX NAME)

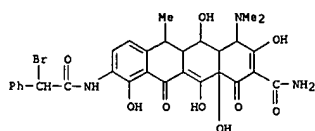


● HBr

RN 161321-29-5 USPATFULL

CN 2-Naphthacenecarboxamide, 9-[(bromophenylacetyl)amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

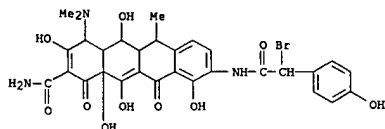
L6 ANSWER 3 OF 4 USPATFULL (Continued)



● HBr

RN 161321-30-8 USPATFULL

CN 2-Naphthacene-9-carboxamide, 9-[[bromo(4-hydroxyphenyl)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

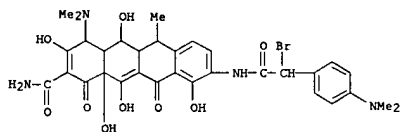


● HBr

RN 161321-31-9 USPATFULL

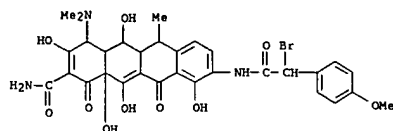
CN 2-Naphthacene-9-carboxamide, 9-[[bromo(4-methoxyphenyl)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 3 OF 4 USPATFULL (Continued)



● HBr

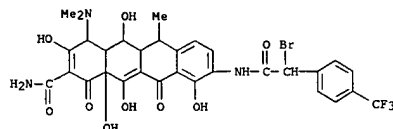
L6 ANSWER 3 OF 4 USPATFULL (Continued)



● HBr

RN 161321-32-0 USPATFULL

CN 2-Naphthacene-9-carboxamide, 9-[[bromo(4-(trifluoromethyl)phenyl)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 161321-33-1 USPATFULL

CN 2-Naphthacene-9-carboxamide, 9-[[bromo(4-(dimethylamino)phenyl)acetyl]amino]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrobromide (9CI) (CA INDEX NAME)

L6 ANSWER 4 OF 4 USPATFULL

ACCESSION NUMBER:

75:43716 USPATFULL

TITLE:

Tetracycline derivatives substituted in the 7 position and process for preparing the same

INVENTOR(S):

Bernardi, Luigi, Milan, Italy  
Colonna, Vincenzo, Milan, Italy  
De Castiglione, Roberto, Milan, Italy  
Masi, Paolo, Milan, Italy

PATENT ASSIGNEE(S):

Societa' Farmaceutici Italia S.p.A., Milan, Italy  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3901942		19750826
APPLICATION INFO:	US 1973-397691		19730917 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1972-29328	19720918
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Davis, C.	
LEGAL REPRESENTATIVE:	Hubbell, Cohen & Stiefel	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIMS:	1,2	
LINE COUNT:	725	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

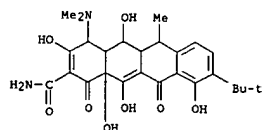
AB Process for the preparation of tetracycline derivatives substituted in the 7 position comprising first obtaining tetracycline derivatives substituted in the 7 and 9 positions, transforming the substituent in the 7 position into the desired substituent, and then eliminating the substituent in the 9 position. Invention further comprises products obtained during the course of the above process.

IT 53108-30-8P

(prepn. of)

RN 53108-30-8 USPATFULL

CN 2-Naphthacene-9-carboxamide, 4-(dimethylamino)-9-(1,1-dimethylethyl)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo- (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 11:51:12 ON 19 MAR 2002)

FILE 'REGISTRY' ENTERED AT 11:51:17 ON 19 MAR 2002

L1               STRUCTURE UPLOADED

L2               2 S L1

L3               STRUCTURE UPLOADED

L4               8 S L3

L5               300 S L3 FULL

FILE 'USPATFULL' ENTERED AT 11:53:42 ON 19 MAR 2002

L6               4 S L5